

NOVEMBER 1958

\$12 PER YEAR

# Industrial Development

and manufacturers record

THE NATIONAL GUIDE TO INDUSTRIAL PLANNING AND EXPANSION

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GARDNER-DENVER'S GIFFORD V. LEECE

In addition to gearing its expansion program to the anticipated long-term growth in demand for heavy industrial equipment and specialized tools, Gardner-Denver Company is introducing new products to extend its markets. (page 15)

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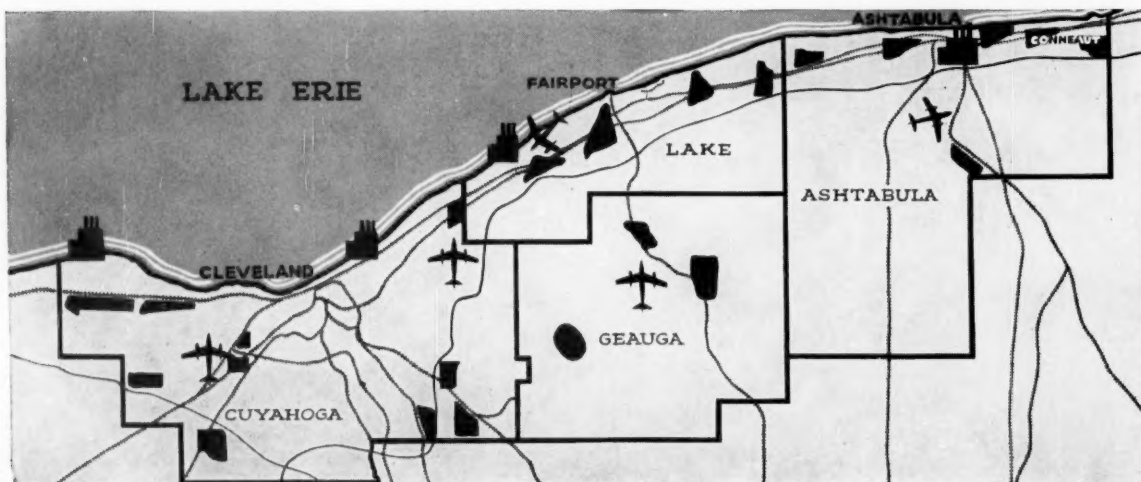
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## INDUSTRIAL DEVELOPMENT and manufacturers record

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**BPA**

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SOUTHERN CALIFORNIA

# IN OUR OPINION...

When the Colorado Springs site was chosen for the Air Academy, a lot of professional developers said it was a "bum decision." At the time, the criticism sounded like sour grapes. But now the Tax Foundation has jumped on the Air Force with both feet. According to the Foundation, \$13 million has already been spent on grading and \$4 million on retaining walls—all on a site chosen from among dozens of alternates.

\* \* \*

An unusual lease negotiated by Ecclesiastical Furniture, Inc., could set a pattern for year-round use of facilities built for short-season occupancy. The firm will use the main building at the fair grounds in Wattsburg, Pennsylvania, for 50 weeks of the year, then take a two-weeks vacation while the annual fair is in progress. Congratulations to Erie County developers George Ledger and Ray Tanner (featured in ID's August issue).

\* \* \*

Business air traffic is threatened with further restrictions as the bureaucrats impose additional roadblocks in the sky. Latest move is to set aside large restricted area in West Texas, near Lubbock and Big Spring. Another huge restricted area is being proposed near Beaufort, S. C.

\* \* \*

The U. S. Chamber's national confab on metropolitan growth, set for November 24-25 in Washington, sounds like something industrial expansion planners will want to attend. . . . Southland Life Vice President John Briggs reports that about 80 per cent of the office space in the \$35 million Southland Center in Dallas has been committed, and grand opening will probably be "toward the end of February." . . . American Airlines has started using the slick new Detroit Metropolitan Airport, 14 miles closer to downtown than the Willow Run terminal.

\* \* \*

The National Coal Association has persuaded the Army Corps of Engineers not to switch from coal to other fuels at Army installations in Virginia, arguing that use of modern coal-burning equipment is more economical. . . . The world's longest slope conveyor is being installed at Ishpeming, Michigan, by Cleveland Cliffs Iron Company. Made by U. S. Rubber, the belt will be 3,791 feet long and will carry 700 tons of taconite per hour. Site planning possibilities are shown by comparison: if bottom pulley of belt were located at 34th Street and Broadway, the top pulley would be located at the observation tower on the 69th floor of the Radio City Building near 49th Street and 5th Avenue.

\* \* \*

In our morning mail recently was a letter from K. Chen, of the Institute of Scientific Information, Peking, suggesting an exchange of publications. Enclosed with the letter was a list of current periodicals which by their existence, indicate Communist China must not be under-rated. Sample titles: High Molecule Bulletin, Microbiological Abstracts, Journal of Cartography.

\* \* \*

International Cooperation Administration has dispatched a four-man U. S. team to Colombia to exchange management philosophies with South American executives. Heading the team is Eugene B. Hotchkiss, Vitro Corporation Vice



President. . . University of Arizona has gotten \$60,000 from U. S. Geological Survey for arid lands research, leading to ultimate understanding of hydrologic cycle. . . First phase of Duluth's \$10 million foreign trade terminal will be completed next year. An 80 acre site is now being filled and piled.

\* \* \*



Visitors to Chicago's O'Hare airport will soon be using this three-level bridge which will separate traffic on the Northern Illinois Toll Highway, the Tri State Toll Highway, and the ramps to the airport.

\* \* \*

DuPont is going into the polyethylene film field, first with a pilot unit at Orange, Texas, probably to be followed by production plant. . . Speaking in Buffalo recently, a Chemstrand official described a new technique "Evolutionary Operation" which permits production refinement during operation. Sounds like a good planning idea. . . In Boston, Frederick Kramer told the National Power Conference that before the end of the century we will be using hydrogen fusion power from sea water.

\* \* \*

Looks like Oklahoma will follow Pennsylvania in offering 100 per cent financing of industrial buildings. A proposed Oklahoma Industrial Finance Authority, up for consideration by the legislature, would put up 25 per cent of plant cost, with local interests to provide 25 per cent, and commercial sources to supply 50 per cent. The initial fund would be \$10 million.

\* \* \*

Uranium continues to move. The AEC reports 18 processing mills in operation on June 30, with several new plants about to open. New Mexico is leading state with reserve of 52,800,000 tons. Wyoming, Utah, Colorado, and Arizona follow. Only one mill is government-owned—remainder are private enterprises selling concentrates to government at average price of \$9.38 per pound.

\* \* \*

Gene Wedereit, PR man for Chemetron, made some astute observations about the problems of planning in a small firm at a recent session in Chicago. "It's almost as difficult for the small businessman to analyze his company's operations as it is for him to psychoanalyze himself," Wedereit said.

\* \* \*



Ford Motor's engineering vice president, Andrew Kucher (photo) is enthusiastic about a "glideair" vehicle which he says can revolutionize ground transportation. Guided by rails and levitated a fraction of an inch above the roadbed by air, the wheel-less vehicle could be capable of speeds of from 200 to 500 miles per hour. Kucher has been working on the idea since 1928.

\* \* \*

If present gains in education, leisure and living standards are to continue at the rate they have in the past, the production rate of the average American at work will have to double by 1978, Henry B. du Pont, a vice president and director of the Du Pont Company, told the Instrument Society of America here.

"Each employed person today," Mr. du Pont said, "is supporting himself plus two other persons." Assuming a continuation of the present rate of gain, each individual 20 years hence will require of the economy the equivalent in goods and services to that used by two persons today.

Since every employed worker today supports himself and two others, this would mean that, in 1978, he would have to produce double that amount, or enough, at current levels, to support the equivalent of the consumption of four other persons, plus his own doubled consumption.



## EDITORIAL SURVEYS . . .

### and plant location reports

Since before the turn of the century MANUFACTURERS RECORD has issued special studies of specific cities and areas to assist the site-seeking industrial firm. Today, through the combined coverage of INDUSTRIAL DEVELOPMENT and MANUFACTURERS RECORD this tradition of leadership in this field is being extended and carried forward.

Before you go site-seeking, take advantage of background studies which have already been prepared for the areas listed below. Generally, reprints are available gratis.

Area	Publication	Date
North Carolina (ID-MR)		Oct., 1958
Orange County, Calif. (ID-MR)		Sept., 1958
Erie County, Pa. (ID-MR)		Aug., 1958
New Bedford, Mass. (ID-MR)		Aug., 1958
Lower Va. Peninsula (ID-MR)		July, 1958
Mattoon, Ill. (ID-MR)		June, 1958
Florida Bay Area (ID-MR)		June, 1958
Western Mississippi (ID)		May, 1958
Savannah Ga., area (MR)		May, 1958
Knoxville, Tenn. (MR)		April, 1958
Charleston, S. C. (MR)		March, 1958
Dallas, Tex. (MR)		Feb., 1958
Louisiana (ID)		Jan., 1958
Cobb County, Ga. (MR)		Jan., 1958
Arizona (ID)		Dec., 1957
Pennsylvania (ID)		Sept., 1957
Canada (ID)		Aug., 1957
Petersburg, Va. (MR)		Aug., 1957
Southwest Ga. (MR)		July, 1957
Charlotte, N. C. (MR)		Feb., 1957
Meridian, Miss. (MR)		Jan., 1957
Little Rock, Ark. (MR)		Oct., 1956
Raleigh, N. C. (MR)		Aug., 1956
North Carolina (ID)		July-Aug., 1956
Memphis, Tenn. (MR)		May, 1956
Jackson, Miss. (MR)		March, 1956
Chattanooga, Tenn. (MR)		Feb., 1956

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**SIRS:** Recently I was transferred from the Office of Area Development to work with the Small Business Administration on matters relating to State and community development corporations. One of my current assignments is to draft a policy statement under which Title V of the Small Business Investment Act of 1958 will be administered.

My feeling is that policies and regulations drawn up for the administration of the Act should reflect—to the fullest possible extent consistent with sound business practice—the opinions and attitudes of those individuals who will be the users of the Act's several provisions. . . . I have written to the managers of State and community development corporations in 30 different states . . .

Please give us your thoughts on these questions . . .

**JOHN N. RENTZ**

Office of Economic Adviser  
Small Business Administration  
Washington, D. C.

► We think maximum control should be left to local groups, with interest rate at attractive level. General discussion will be given in a subsequent issue. Meanwhile, readers are urged to send ideas to Mr. Rentz.

**SIRS:** I have read with considerable interest the article on page 57 of your September issue of **INDUSTRIAL DEVELOPMENT** on "Science in Site Selection." At the end of the article there is a bibliography, in which Articles 3, 4, 5, and 6 interest me, and I would like to obtain them. Could you please tell me how?

**JUDSON BRADWAY**

1100 Majestic Building  
Detroit, Michigan

► National Research Council, Washington, D. C.

**SIRS:** We have reviewed your magazine and find it very interesting and helpful in learning of new plants under construction and recently put into operation. Our company is in the electrical construction business doing work in nine of the northern Midwest states.

**RICHARD E. LEUCH, Vice. Pres.,**  
Lee Electric, Inc.  
Logansport, Indiana

**SIRS:** Once again I want to thank you for contributing your publications to our Trade Mission libraries. Since 1954, when the Trade Missions Program was instituted, our Missions have consulted with more than 300,000 foreign businessmen all over the world, and trade publications have been ever present as tangible evidence of the scope of our free enterprise economy . . .

In preparing for Trade Mission activity for the remainder of the year we find we will have need for 15 copies of **INDUSTRIAL DEVELOPMENT**. It is our hope that we can count on your continued support of this program . . .

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## LETTERS

this international trade promotion effort.

**E. PAUL HAWK**, Director  
Trade Missions Division  
Bureau of Foreign Commerce  
U. S. Department of Commerce

**SIRS:** Your story in the August issue of **INDUSTRIAL DEVELOPMENT** on "Baltimore's Tax Lesson" was particular interesting and is pertinent to the problem of industrial development in some of the other Maryland areas.

I am taking the liberty of reprinting the article for distribution to Economic Development Committees interested in the Maryland area. . . .

**J. S. BARTLETT**,  
Potomac Electric Power Co.  
Washington, D. C.

**SIRS:** Our September copy of **INDUSTRIAL DEVELOPMENT** arrived yesterday and we are gratified to see the attractive treatment given the Aruban water conversion plant. Would it be possible for your circulation department to send me another copy of this issue. . . .

**A. E. DEMBITZ**  
Chief Civil Engineer  
Singmaster & Breyer  
New York, New York

**SIRS:** I have been impressed by your special features on different towns. The one on Mattoon is especially interesting because we have a small plant there. . . . A thorough article like this must be of great value to the folks who are trying to promote a community. I wonder how you select the towns you cover. Do you put them to some kind of business climate test? . . .

**C. P. FISHER, JR.**, Consultant  
Business Climate Development  
General Electric Co.  
New York, N. Y.

► Yes, We use the 700 point checklist outlined in the 1957 Site Selection Handbook.

**SIRS:** Thank you very much for the August issue containing the story on Black and Decker. I want you to know that this story is quite well-done and very much appreciated.

**ROBERT D. BLACK**, Pres.  
Black & Decker Mfg. Co.  
Towson, Maryland

**SIRS:** Thank you very much for . . . the story on page 6 of your August issue of **INDUSTRIAL DEVELOPMENT**.

Your reporter has a very good grasp of the conditions of restricted areas from the standpoint of aircraft flight. I wholeheartedly agree with him and I believe that one of our problems is because of temporary requirements the need is determined that certain areas should be restricted, however, those requirements disappear and for years thereafter, that area remains as a restricted area. I think that any military or civilian agency which obtains a restricted air space should be required to re-apply for this restricted air space every three (3) months or otherwise the restrictions would be removed.

I also believe that the need for restrictions on air space should be tightened up. Just the fact that there is going to be heavy traffic in a given area because of a military project does not, in my mind, warrant need for restrictions.

It is a very excellent article. . . .

**J. W. MILLER**  
General Sales Manager  
Piper Aircraft Corp.  
Lock Haven, Pennsylvania

November, 1958

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# SHOULD YOU USE A BROKER?

**The role of the industrial real estate broker is growing constantly in importance to expanding companies. An official of the Society of Industrial Realtors explains here how a broker can expedite acquisition of plant properties . . .**

*By Frank G. Binswanger, Sr.*

PHILADELPHIA. In a period when industry needs every dollar it can get its corporate hands on, hundreds of thousands of dollars are being spent unwisely; spent in a way that would be harshly criticized in many phases of plant purchasing or operation; spent without properly qualified people to evaluate the expenditure; spent without a complete investigation of the purchase.

Last year, industry spent over \$38 billion in relocation, expansion, construction and modernization of its facilities. This year, despite the business downturn, \$34 billion will be spent.

"And much of it will be paid out as a result of decisions reached by insufficient research which led to faulty conclusions," according to Frank G. Binswanger, Sr., nationally-known industrial and commercial realtor.

"This is happening," he declares, "because industry has not recognized the true role, or the true value, of the industrial realtor."

Mr. Binswanger, president of Frank G. Binswanger, Inc., one of the nation's largest industrial and commercial realty organizations, asserts that no sound businessman would get involved in legal action where large sums of money are at stake without the advice of a competent attorney. "Why then should he undertake the relocation of his plant, the selection of a new site or the expansion or modernization of his present facilities without consulting a specialist, in this case an experienced industrial relator," Mr. Binswanger asks.

A founder, and currently a member of the board of directors of the Society of Industrial Realtors, Mr. Binswanger believes that one of the reasons that

many industrial firms fail to take advantage of the industrial realtor is the fact that they know little about the actual scope of the operations of such a specialist.

"It goes far beyond the activities of the average broker or consultant," he points out.

"Our job often begins before a firm even thinks about relocating, expanding or building, and frequently doesn't end until we've seen the firm move into its new plant, and sold or leased its former property. In between, we undertake all the research that the company officials would do while looking for a new property, and add the investigations that make the difference between a move that will be a profitable one, and one that will show a loss."

When the Binswanger organization is approached by a firm that is consider-

Frank G. Binswanger, Sr., (center); Frank Binswanger, Jr., (left), and Robert L. Huffines, Jr., chairman of the board of the Binswanger Southern Division, look over pictures of plants before recommending several to a client.





ing relocating, a team of experts with top-level industrial backgrounds undertakes a thorough investigation of the needs of the particular firm.

"By this alone, we have saved companies countless hours and great amounts of money," the realtor said.

He points out that one of the biggest wastes of time and money are inspections of facilities which are completely unsuitable for a plant's operation.

By knowing beforehand what floor loads, ceiling heights, column spacings and loading facilities are needed; what power and water capacity and what transportation is necessary, it's a simple matter, according to Binswanger, to eliminate about 95 per cent of the sites or buildings available.

While even an inexperienced man will immediately eliminate some properties from consideration because of obvious faults in relation to the operation of his firm, he spends more than half his time investigating plants that for some usually obscure reason make the building unsuitable for his needs.

"A case in point was brought to my attention not too long ago at an SIR meeting. A manufacturing firm sent its vice president to look at a plant under consideration and he returned with the recommendation that it be purchased. He had thoroughly inspected the physical layout, and the plant on the surface seemed to fill the bill.

"While he had checked the ceiling heights to see if the firm's machinery could be properly housed, he hadn't thought of checking the doors and, even with the machines partially dismantled, the company found it impossible to bring its equipment in without completely breaking it down. This would have required the services of several mechanics for a long period, or construction of a new entrance.



Alert brokers today are using the most advanced techniques to serve their clients. Jack Giefen (right), of Boston's well-known R. M. Bradley & Company, uses a private plane to show industrial sites to executives. Shown with him is Frederick W. Howe, Jr., president of Crompton & Knowles Corporation.

"They settled on the new opening, and it cost them more than \$10,000. The fee for the industrial realtor's services for the whole project would have been substantially less than that, and he probably could have found a building more suitable in many other respects."

While the actual plant itself is the primary consideration to a firm which wants to relocate, another important factor is the community in which the plant is to be located.

Binswanger's firm prepares a report not only on the geographical location, transportation facilities and other vital aspects, but also submits a report on the available labor pool of the area, the tax structure of the community and even a sociological picture of the town, defining the attitude of the residents toward industry and to the executives

and supervisory personnel who would move into the area if the plant relocated.

"We must take into consideration not only the tangible aspects of a community like the schools, housing facilities and other services, but the general 'climate' of a town as well. You can't take a jet-age plant, with progressive, sophisticated people running it, and put it into a community that still regards automobiles with suspicion," he declared.

Very often, Mr. Binswanger believes, an industrial realtor can prove to a firm that a move will save considerable money in a given period of time.

He cites the example of a firm which has a multi-story plant of 100,000 square feet. Frequently an industrial realtor can show the company that by moving into a one-story building, it would only be necessary to take 75,000 square feet, since stair-wells and elevators are eliminated as well as duplicate facilities on each floor such as sprinkler systems and lavatories. In addition, he can save many man hours by more efficient materials handling and storing. This will add up to about a 25 per cent saving in space and time, while the same or greater productivity can be achieved.

The same holds true for companies that have traditionally had multi-plant operations.

"We have often proved beyond question that the same production, and more, can be achieved more efficiently and certainly more economically by ex-



Frank G. Binswanger was born November 12, 1902, in Philadelphia. At the age of 16 he joined the real estate firm of Mastbaum Bros. & Felscher there. When that organization merged with Albert M. Greenfield & Co. in 1928, Mr. Binswanger continued with the latter till 1932, then organized Frank G. Binswanger, Inc., of which he is president. During World War II he served for three years in the Quartermaster Corps, leaving the service with the rank of colonel. During the postwar period he visited 38 countries as a goodwill ambassador of the United States and Greater Philadelphia. Mr. Binswanger resides in Elkins Park, Pennsylvania.



## USE A BROKER?

panding one facility to accommodate all operations, or disposing of all plants and taking one that will house all the company's manufacturing processes," Mr. Binswanger points out.

He says the experienced industrial realtor can see an amazing number of essential facts that an untrained eye cannot: that the status quo of a plant need not always be maintained; that changes can be instituted both in the structure itself, and the thinking of the company, that will prove profitable.

"And you can only assay the value of these changes with the highly specialized experience which the industrial realtor possesses," Binswanger declared.

Arranging financing for plants moving to new locations is another facet of the Binswanger service. This is done either by interesting investors such as trust funds, pension plans, insurance companies or private schools in purchasing a building and then leasing it back to the industry; by obtaining routine loans and mortgages from normal channels, or the more complicated method of having a community provide the financing through public bond issue plus local bank loans.

In this case, Binswanger works with local banks, community development groups, municipal governments and private individuals in the area in which the plant is to locate. He sets forth the activities of the plant, the number of employees, its estimated payroll, its financial situation, growth potential and similar factors and then attempts to secure the capital needed from the various local sources.

The building or property formerly owned by a company which Binswanger has relocated is often turned over to him to dispose of once the move has been made. Then the whole process starts anew.

Binswanger feels strongly that industry will eventually come to rely more and more on industrial realtors for help.

"No owner of an office building or major commercial property would even consider handling leases, sales or other transactions of this nature without his realtor," Binswanger pointed out. "I feel certain that in a few years, the same attitude will prevail in industry, brought on chiefly by demonstrations by industrial realtors and organizations like the Society of Industrial Realtors, of the consistently proven value of a specialist in handling major industrial real estate transactions," the realtor concluded.



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# INDUSTRIAL AESTHETICS

*Today's industry can get the job done better and look pretty, too. Experts in the development field have envisioned and made real a world of industry as beautiful as it is utilitarian. This factual report notes the strides being made in planning new industrial districts or parks . . .*

By JOSIE QUILTY

**I**T'S not by chance that America's newest industrial districts are neat and attractive. The intangible values of aesthetics and psychological planning have agreeably influenced zoning regulations, and there's a brand new science that might be called "industrial aesthetics" being developed.

Industrial zoning, restrictive covenants, purchase agreements, terms set up by private developers, all set forth controls that govern the aesthetic and psychological effect of each building, and of the development as a whole.

"Aesthetic values embodied in zoning, deed restrictions or covenants insure compatibility among manufacturers locating in planned industrial parks," says Theodore K. Pasma, chief of the Industrial Location Division, Office of Area Development, United States Department of Commerce. "The property buyer is assured of a desirable address and security against deterioration of property values. Most manufacturers today are well aware of the public relations value, both locally and nationally, of a well-designed plant in pleasant surroundings," Mr. Pasma adds.

He suggests some of the major items considered in setting up aesthetic controls in a planned industrial park: building setbacks from right-of-way line; restrictive size of signs and billboards, approval of colors used in painting; maximum percentage space that building may occupy; off-street parking facilities and off-street loading and unloading docks.

Mr. Pasma's checklist continues: attractive landscaping; disposal of waste material; fumes and odors; overhead wires; material storage; temporary structures; fences, construction and alterations.

The planned industrial district, through the guidance of national, local and community zoning boards, private owners, and railroads, has evolved into a "thing of beauty and a joy forever."

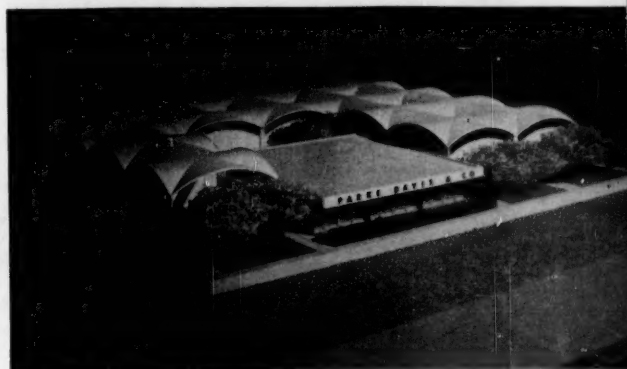
A thing of beauty because zoning laws and the laws of private enterprise have set certain aesthetic values upon busy, burly industry and turned these industrial citizens into community leaders.

A joy forever because these well planned industrial districts, according to Bill Windsor, Jr., President of Windsor Properties, Inc., and developer of Dallas' exemplary Brook Hollow,

investment because of the property value protection inherent in the type of development, and eliminated traffic congestion that decreases density affected by the land use restrictions. He adds that undesirable employee turnover seems to have been completely eliminated in the district, and attributes this situation to the employee's appreciation of the environment in which he works.

It's hard for traffic to become congested and foul up the operation of inbound and outbound material when wide, smooth roads with off-street parking facilities bisect neat, geometrical

This model of the Parke, Davis & Company building at San Mateo, California, shows an outstanding example of farsighted industrial plant design. The designer was Minoru Yamasaki of Detroit. The building is in the Bohannon Industrial Park.



eliminate prospective slums, and have the flexibility to meet changing requirements for a society of the future.

In the planned district, where aesthetics is the keynote, benefits go across the board. Not only the community, but also the owners, employees, and customers of firms in the district, feel the healthy effects of aesthetic and psychological planning.

Benefits to occupants of planned industrial districts, says Mr. Windsor, include the incentive for higher capital

sites. It's easier for employees to stay happily on the job when their fringe benefits include light, attractive working areas, rolling green lawns free of debris, planned landscaping and beautifully styled buildings.

Because of its application to industrial development of the basic principles of exclusive residential development, Cabot, Cabot & Forbes Company of Boston uses the terminology of "garden-type" industrial development.

Garden-type industrial development





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## AESTHETICS

is an industrial variation of the garden-type residential apartment development. Principles accentuated include landscaping, professional planning and functional usage. This aesthetic planning imposes substantial set-back restrictions and limitations on types of construction. It approves architectural design and exterior finish, and regulates the relationship between building area and land area, and between one building and another. Cabot, Cabot & Forbes' garden-type industrial districts require attractive landscaping and black-top driveways, and they eliminate objectionable uses of property.

The purpose of industrial planning as practiced by Cabot, Cabot & Forbes is to effect comprehensive plans and to promote the best use of land and buildings. It is intended to prevent the continuation of practices that have brought economic loss, the creation of unwholesome conditions, and the depreciation of property values. Objectives are to stabilize property values, minimize congestion, encourage financial success, and sponsor orderly growth.

In order to maintain high standards of land usage and to insure long-term stabilization of property values, the firm Forbes has enlarged upon the restrictive and protective aspects of zoning through deed restrictions, lease restrictions and reservations requiring authorized approval. Application of these principles has proven to be outstandingly successful in residential development, and the same restrictive and protective qualities are vitally necessary to protect industrial property values and prevent the growth of industrial slums.

In order to further protect the long-term investments of its clients, the organization has enlarged upon the following protective provisions of the local zoning ordinances: setbacks, landscaping, light and air, loading docks, construction materials, plan approval, uniform sign standards, objectional uses, land-to-building ratio, and future adjustments.

The meeting of architectural standards has become an important aspect of aesthetic planning. In the case of Brook Hollow, all plans of buildings are submitted to and approved by Windsor Properties.

"We make no attempt to decide the architectural desirability of any specific treatment," says Mr. Windsor, "there are too many variations in taste, and the market has proved an adequate sampling ground."

To avoid the unsalable appearance



and the costly maintenance problems of cheap construction and to maintain architectural integration, Cabot, Cabot & Forbes requires that the exterior walls of each building in the garden-type district be finished with brick or materials of equal attractiveness.

And to maintain landscaping and architectural conformity, which is of such vital importance for the protection of the occupants of a garden-type industrial development, plans pertaining to construction, landscaping, signs, and alterations are subject to prior approval by Cabot, Cabot & Forbes.

Firms generally are readily willing to submit their plans for approval, for, besides rendering other benefits, this check insures them of attractive neighboring plants.

Harry C. Adley, Partner in the Atlanta firm of Hill & Adley Associates, Inc., states, "The courts, in reviewing cases involving architectural control, have produced decisions which in some cases support and in some cases declare invalid such control of a building's appearance. But in most cases where architectural control has been declared void, it has been because appropriate and reasonable standards for such judgment have not been fully spelled out in the ordinances."

#### Covenants Drawn

Covenants have been drawn up to cover the aesthetic values of landscaping, maintenance, neatness and cleanliness. Cabot, Cabot & Forbes states that a minimum of two-thirds of the square foot area within the setback area of each building must be provided with attractive green lawns and landscaping in their garden-type developments. At Brook Hollow, landscaping must conform to reasonable minimum standards as proposed by and on file with Windsor Properties. The organization handles all of the tree and lawn planting without cost to the purchaser, and also provides a maintenance service.

This service includes lawn sprinkling, mowing, edging, and tree pruning. In addition, all trash is removed from the lawns at least three times a week.

"For these services," says Mr. Windsor, "a plant with 200 feet of frontage on a 50-foot setback street, pays \$10.00 a month during the six to eight growing months of the year. This small charge is made possible through a mass production approach to our maintenance operations."

Positive neatness requirements at Brook Hollow are assured by the fol-

lowing clause in the restrictive covenant: "The owner of any tract in this district must at all times keep the premises, buildings, improvements and appurtenances in a safe, clean, wholesome condition, and comply in all respects with all government, health and police requirements; and any owner will remove at his own expense any rubbish of any character whatsoever which may accumulate on said property."

Most covenants make a general statement concerning odor, dust, fumes, smoke and noise. In order to doubly protect their residents from these definitely "un-aesthetic" disturbances, Cabot, Cabot & Forbes has enlarged upon local zoning ordinances. No open storage is permitted where it might be detrimental to a garden-type industrial development, and no use is permitted which is objectionable by reason of noise, odor, vibration, smoke, or the hazardous nature of the operation. Care is taken in selecting industrial neighbors whose businesses are suitable to the development.

"With modern industrial techniques for the elimination of smoke, odor and noxious gases," says Pasma, "there is no reason why many industries now classified as 'offensive' or 'nuisances' cannot be permitted in particular zones."

"A lot may be said for zoning ordinances which set up standards for each zone and permit any industry meeting these standards to locate there. Efforts should be made to avoid naming types of industrial uses prohibited in specific zones. Attention should be given instead to the actual performance of industries."

Requirements for the building of setbacks are varied, but most districts enforce maintained building lines at established distances back from street frontage. Here, aesthetics enters into a provision which is also made for the sake of safety and convenience.

The Los Angeles Airport Industrial Tract requires a ten-foot setback which has been utilized by some plant owners for head-in parking. Cabot, Cabot & Forbes maintains setback area of usually 50 feet. Brook Hollow's setbacks range from 50 to 100 feet, depending upon building depths which must carry the setback.

Fairfield Industrial District in Kansas City retains an easement on a small corner of every corner lot for neat landscaping, as well as for better vision for motorists at intersections.

Many covenants require off-street parking facilities and off-street loading

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**AESTHETICS**

and unloading docks. Those that do not prohibit on-street placement of these facilities set forth rules intending to prevent traffic congestion. Insofar as is possible, in Cabot, Cabot & Forbes' garden-type industrial developments, facilities for handling and shipping are located on those sides of each building which do not front on the street.

Provisions are also made on each lot in the garden-type industrial park to provide adequate light and air between all buildings. Building lines are usually maintained 15 feet from side lot lines. For several reasons Cabot, Cabot & Forbes has enlarged the local zoning ordinances covering a minimum land-to-building ratio.

This land-to-building ratio is, in most instances, three to one, and Cabot, Cabot & Forbes requires it to insure adequate facilities for parking, loading and unloading, thereby keeping these operations off adjacent streets. The land-to-building ratio also protects against the costly hardships experienced by old, existing structures from lack of vision in not providing sufficient extra land areas, and insures adequate provision for the increasing uses of additional land area that will inevitably come about through technical development.

Unightly sheds or accessory buildings are tabu in the aesthetically planned district. Many covenants rule them out, or require, when it is necessary to store material in the open, that a fence be constructed, and that such storage be limited to the rear of the property. Fences, too, are subject to legislation. Many districts require prior approval of such structures.

**Minimum Standards**

In order to permit minor variances serving the aesthetic value of their buildings and landscaping, Cabot, Cabot & Forbes has adopted the following minimum standards for approval of signs: signs are to be located on the building or on the roof. Roof signs shall not be higher than ten feet above the roof, and the bottom shall not be more than two feet above the roof. All lettering shall be open with a maximum size of eight feet, and no flashing signs are allowed.

The industrial park using aesthetic planning as a yardstick is destined to become a focal point of the community. "In developing these parks," says Pasma, "you are providing the place of work. Other elements in community development follow job opportunities."

It used to be that community resi-

dents gave up a blind cry of "No!" whenever they heard that industry was coming their way. We may soon see the day when bright new industrial districts hold the reigns and become choosy about which residential section they will favor with their aesthetic beauty.

**Statement of Ownership**

Statement of the ownership, management, etc., required by the acts of Congress of August 24, 1912, and March 3, 1933, and July 2, 1946, of INDUSTRIAL DEVELOPMENT and MANUFACTURERS RECORD, published monthly at Baltimore, Maryland, for October, 1958.

1. That the names and addresses of the president, publisher, editor, managing editor and business manager are: President, H. McKinley Conway, Jr., Conway Publications, Inc., North Atlanta 19, Georgia; Publisher, H. McKinley Conway, Jr., Conway Publications, Inc., North Atlanta 19, Georgia; Editor, H. McKinley Conway, Jr., North Atlanta 19, Georgia; Managing Editor, Jouett Davenport, Jr., Conway Publications, Inc., North Atlanta 19, Georgia; Business Manager, Stancel L. May, Jr., Conway Publications, Inc., North Atlanta 19, Georgia.

2. That the owner is Conway Publications, Inc., North Atlanta 19, Georgia. The sole stockholder is H. McKinley Conway, Jr., president, Conway Publications, Inc., North Atlanta 19, Georgia.

3. That the known bondholders, mortgagees and other security holders owning or holding 1% or more of total amount of bonds, mortgages or other securities are: None.

4. That the two paragraphs next above, giving the names of the owners, stockholders and security-holders, if any, contain not only the list of stockholders and security-holders as they appear upon the books of the company, but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security-holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and that this affiant has no reason to believe that any other person, association or corporation has any interest, direct or indirect, in the said stock, bonds or other securities than as so stated by him.

Sworn to and subscribed before me this 5th day of September, 1958.

Guy H. Tucker  
(My commission expires April 9, 1961)

*He that publishes a book runs a very great hazard, since nothing can be more impossible than to compose one that may secure the approbation of every reader.*

**MIGUEL DE CERVANTES**  
(1547-1616)

*Never put off until Tomorrow what should have been done early in the Seventies.*

**GEORGE ADE**  
(1866-1944)



**Anticipating continued long-term growth in demand for heavy industrial equipment and specialized tools, the venerable Gardner-Denver Company is proceeding with an impressive expansion program, along with introducing new products to extend its market coverage.**

**I**N spite of the recent downward dip which occurred in the economy, Gardner-Denver Company is proceeding with a major expansion program.

This includes erection of a new forge plant in Denver, and the company also completed in the Spring a modernization and expansion of its foundry facilities at La Grange, Missouri.

Gardner-Denver is a leading producer of compressors, rock drills, pumps and air tools for construction, mining, petroleum and general industry. In

1959 it will celebrate its centennial, thus joining a select list of industrial firms which have reached this major milestone.

Although sales of the company were down in the early part of this year, pickups of incoming orders indicate that 1958 volume should be in the neighborhood of \$60,000,000.

Capital expenditures for the first 9 months of 1958 totaled \$2,000,000. Total capital expenditures for 1958 are estimated at \$2,750,000, as compared with \$3,482,000 for 1957.

Net income after taxes for the first 9 months of 1958 was \$3,436,566, or \$1.86 cents per share. This compares with \$6,188,400, or \$3.38 per share in the same period of 1957.

Part of the decline in profits was due to the long manufacturing cycles found in a heavy manufacturing industry that make it impossible to reduce operations on short notice.

The oil field and general industrial business has increased and our construction business showed substantial improvement in recent months. Inventories declined 3½ million dollars in the past four months.

A four-point program is enabling Gardner-Denver to hold its 1958 sales above the level of the heavy industrial equipment industry generally, as nearly as can be determined from reports.

These are:

(1) The Gardner-Denver field sales force is being increased steadily to give more service in the field, resulting in a bigger share of the available sales in many cases;

(2) The company is running the biggest advertising program in its 99-year history;

(3) Some products (confidential)

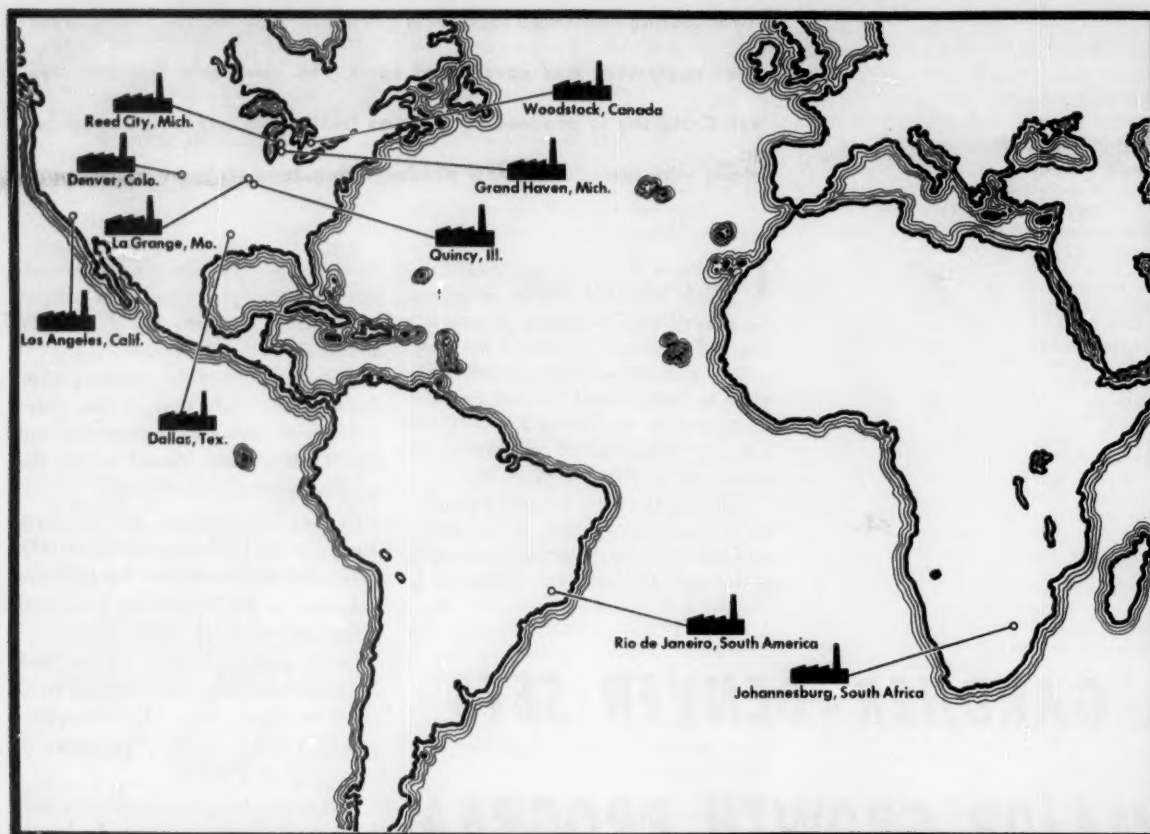
## **GARDNER - DENVER SETS MAJOR GROWTH PROGRAM**

**BY GIFFORD V. LEECE**



Gifford V. Leece is president of Gardner-Denver Company which in 1959 will observe its centennial. Mr. Leece was born in 1898 at Bishop, California. He came to the Quincy, Illinois, headquarters of the company 36 years ago after attending the University of Southern California and serving in the Army. He began his career with the company in the production department. Subsequently Mr. Leece became a field salesman and later was advanced to district branch manager at Los Angeles, then manager of the West Coast area. After that he acted as export manager for the company in New York city, and then was named general sales manager. Before being named president in July, 1954, he was vice president. He also is chairman of the executive committee and a member of the board.





The far-flung operations of Gardner-Denver Company are shown graphically on this specially prepared map. The plant at Woodstock, Ontario, was opened last year, as was the operation at Rio de Janeiro. Current projects include enlargement of the plant at Johannesburg. The company's growth consciousness and its confidence in the future is shown not only by these expansions but also by its penetration into new market areas and into additional product lines.

will be introduced earlier than originally planned, with product development activity being stepped up to achieve this; and

(4) Greater emphasis than ever is being put on foreign and Canadian sales, which account for about one-third of total sales.

Diversification into new areas of operation and increasing sales of "expendables" are also building business for the company. Sales of "expendables," such as drills and bits, and replacement parts accounted for about 40 per cent of the 1957 volume.

Gardner-Denver is making increased inroads into the electronics business through production of "Wire-Wrap" tools for assembly work. The company recently shipped to Hughes Aircraft Co. a new machine that for the first time will automatically wire sections of elec-

tronic computers.

The \$40,000 machine will be used by Hughes for automatically wiring an airborne communications system known as the "Lost Chord" for the Wright Air Development Center. The special machine that can be modified for other applications was produced by the "Wire-Wrap" division of Gardner-Denver. It reduces production costs 50 per cent over conventional wiring techniques by simplifying assembly operations, eliminating errors and reducing inspection time.

#### Foreign Developments

On the foreign front, there are these developments:

(1) Increased capacity for the production of compressors and other equipment for Canadian industry has been

made available through a new plant Gardner-Denver opened in Woodstock, Ont.;

(2) The company's full potential in Brazil, where it opened a new factory in 1957, probably will not be reached for several years; and

(3) The firm's enlarged plant in Johannesburg, South Africa is in operation.

Reviewing the company's recent past, it may be noted that from sales of \$22 million and earnings of \$2 million in 1948, sales and earnings were \$72.8 million and more than \$8 million in 1957. Sales increased more than \$40 million in the past four years.

Gardner-Denver's per share earnings in 1957 were \$4.41 as compared with \$1.22 in 1946. Dividends have increased from 50 cents per share in 1946 to the 1958 rate of \$2.00 per share.

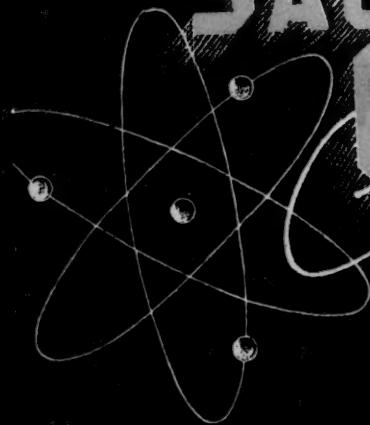


AN AREA SURVEY BY

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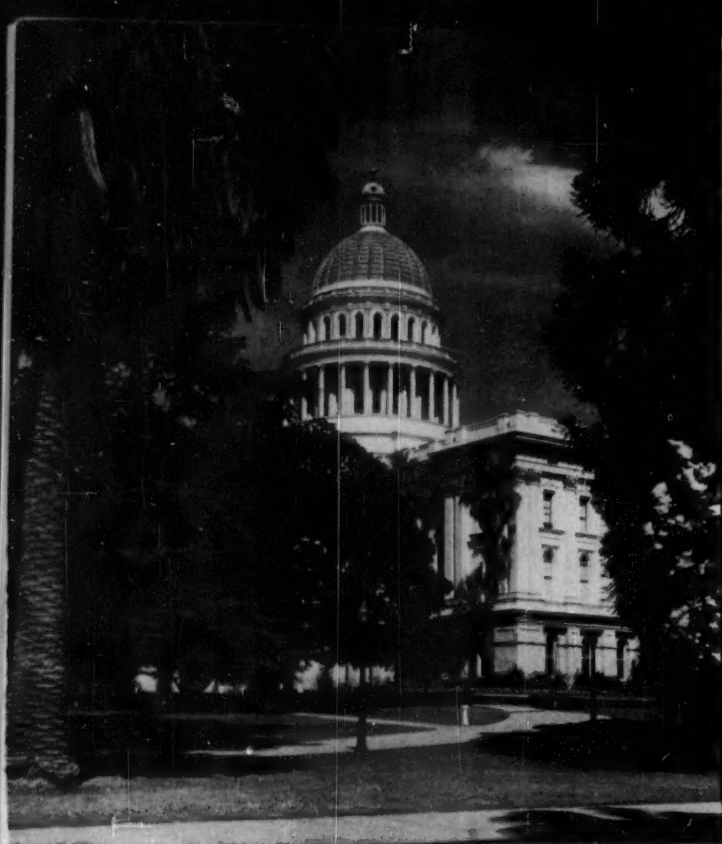
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# SACRAMENTO COUNTY *California*



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California's majestic State Capitol Building at Sacramento is centered in an extensive and beautiful park area.

## A Western Area

By Jouett Davenport, Jr.

**SACRAMENTO.** Looking like a lush oasis, with stately palms, spacious green lawns and flowers of rainbow hues, the capital city of California, and Sacramento County as a whole, constitute an area offering an unusual combination of advantages to the industrialist.

Outstanding among these advantages is the availability of soft, low-cost water. In this connection, Sacramento Mayor Clarence L. Azevedo observes: "We have all the water we need for the next 75 years."

The water supply and distribution facilities in the City of Sacramento are municipally owned. Approximately 86 per cent of the water for the city is drawn from the Sacramento and American Rivers, while the remainder is obtained from domestic wells.

In the county area outside the city, the water is from local wells. Many sections in the county are served by water districts, while those not served by districts develop their own private wells. These wells produce from 500 to 1,500 gallons a minute from a depth ranging from 40 to 50 feet, depending upon location.

It is noteworthy that in the City of Sacramento, water is not metered, a low flat fee being charged. For example, occupants of a five-room house are charged but \$1.05 a month, and charges to larger houses are in proportion.

Such factors as this, and others—including abundant low-cost power—to be considered in the course of this report, have attracted many diverse operations to the area. Two of these have earned for Sacramento the "missiles capital" title. These are Aerojet-General Corporation and Douglas Aircraft Company.

Aerojet produces solid and liquid

### ID AREA SERIES

The accompanying editorial survey of plant location factors in the City of Sacramento and in Sacramento County was conducted by **INDUSTRIAL DEVELOPMENT** under the auspices of a group of business and industrial organizations in the area. Reprints of this report, along with additional information about the area, may be obtained from the Sacramento City-County Chamber of Commerce, Box 1017, Sacramento 5, California.

rocket engines, and in its sprawling plant employs nearly 12,000 persons.

Why have industrialists chosen to locate plants like this in Sacramento County? Major General A. W. Vanaman (USAF retired), now assistant to President Dan Kimball of Aerojet, explains it this way:

"During my career I've lived in many different places, but I've always had a set of ground rules that I planned to follow for the place where I wanted to settle down.

"I wanted to live in a medium-sized community near a big city which I could visit. I wanted to be near the ocean and the mountains, to have a seasonal but not severe climate, and to be among friendly people who accept you for what you are."

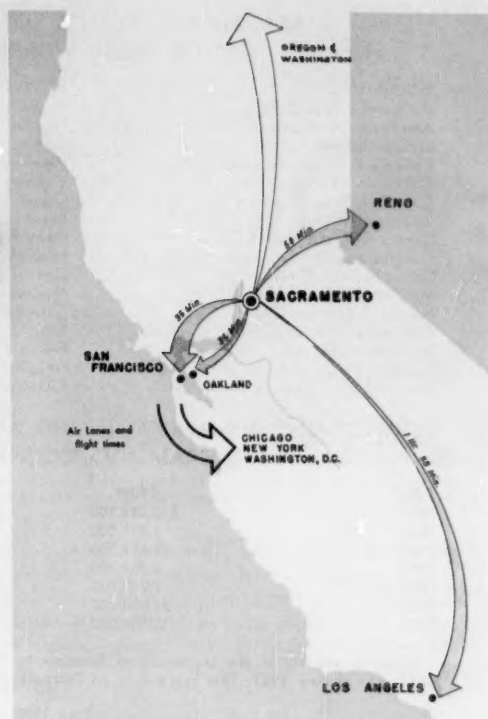
The Aerojet executive, a former commander of the Sacramento Air Materiel Area, continued: "I found all these things here, and much more. That's why my wife and I decided to make our home here even before I had any idea of joining Aerojet."

The General added that he considered Sacramento to be a place with



# With ABUNDENT WATER

The site-seeking industrialist who looks at Sacramento County will find such outstanding plus factors as an abundant water supply, an extensive market in the heart of a rich agricultural section, highly developed industrial parks, and an alert, progressive citizenship, all in an area with characteristics which make it an unusually attractive place in which to live.



an eye to the future and said he felt that those who live and work here will continue to develop and be a part of the nation's greatness.

An executive at the Douglas plant, which produces the famous Thor missile, had much the same thing to say about the attractions of this area as a place to live and to produce.

Comments C. M. Smoot, assistant field station supervisor at Douglas: "Sacramento County has a fine climate, is near the great Pacific ocean and the Sierra Nevada range, and is only a short distance away from San Francisco with all its big-city advantages.

"All these things make for a community that is good for our employees and their families. The people here have an excellent attitude and are most friendly."

Mr. Smoot notes further that the Douglas plant here has 1,500 applications on file from people in other parts of the country who want to come to Sacramento and work. "This is clear proof that they like this area," he adds.

Concerning himself and his family, Mr. Smoot said they planned to stay here and have bought a home. "We



This air view of the Sacramento area, showing the concentration of trees there, indicates graphically how well this section benefits from abundant water. The Sacramento River is in the foreground.



## SACRAMENTO COUNTY

### SACRAMENTO PLANTS EMPLOYING 250 OR MORE WORKERS

Company	Product	No. of Workers
Aerojet-General Corp.	Aircraft Propellant	12,000
American Can Company	Tin Cans	282
Bercut-Richards Packing Co.	Canner	1,600
California Almond Growers Exchange	Almonds	1,200
California Packing Corp.	Canner	1,100
Campbell Soup Company	Canner	2,000
Continental Baking Co.	Baker	300
Crystal Cream & Butter Co.	Dairy Products	260
Douglas Aircraft Co., Inc.	Missiles	650
Libby, McNeill & Libby	Canner	1,000
McClatchy Newspapers	Newspaper	734
Procter & Gamble Co.	Detergents	250
Rice Growers Association of California	Rice	425
Sacramento Frosted Foods	Frozen Food	400
Southern Pacific Company	Freight Cars	4,000
Standard Oil Company of California	Petroleum	388

### INVESTMENT IN MANUFACTURING AND DISTRIBUTION SACRAMENTO COUNTY

Year	New	Expansion
1951	\$10,562,700	\$ 3,898,300
1952	1,511,800	962,000
1953	2,631,500	1,694,400
1954	3,209,200	3,090,310
1955	1,077,700	27,901,100
1956	37,000,000	\$21,561,000
1957	5,306,000	20,751,697

Industrial activity in the Metropolitan Sacramento Area created an additional 2,675 jobs during 1957. This represents an increase of 17.1 percent over 1956.

Shown is the test stand for the Thor intermediate range ballistic missile, which is at the Douglas Aircraft plant in Sacramento County. The \$8 million Douglas operation is on a site of 1,725 acres.

have lived in many cities, but we like this one the best."

The Douglas missiles plant, a highly technical operation, employs approximately 700 persons.

Other existing plants here, many of which are big employers, range from producers of metal cans and fruit processors to manufacturers of detergents and dairy products.

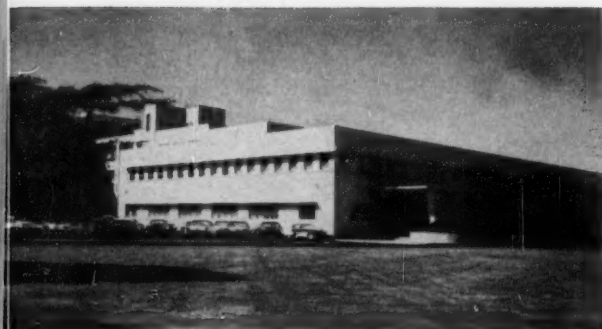
### Market Area

The center of an extensive market area (there are more than 4.5 million people within 100 miles) and in the heart of a rich agricultural section, the metropolitan area is the fifth fastest growing in the nation and is providing an ever-expanding market potential in the immediate area, as well as constant gains in the number of available industrial workers.

The current population of the city and county together is approximately 452,000. Of this figure, 173,000 are in the city.

Present carefully worked out estimates are that by 1970 the city-county population will have grown to 830,000, while it is expected to total 1,530,000 by 1985. The projection for the year 2000 is 2,440,000.

Excellent rail transportation facilities serve this growing area. These include the mainline of the Southern



The huge Campbell Soup Company plant employs more than 2,000 persons the year around. The attractive administration building, shown here, is set off by a spacious lawn.



The Procter & Gamble plant in Sacramento, which manufactures detergents, provides employment for approximately 250 persons.



## SACRAMENTO COUNTY

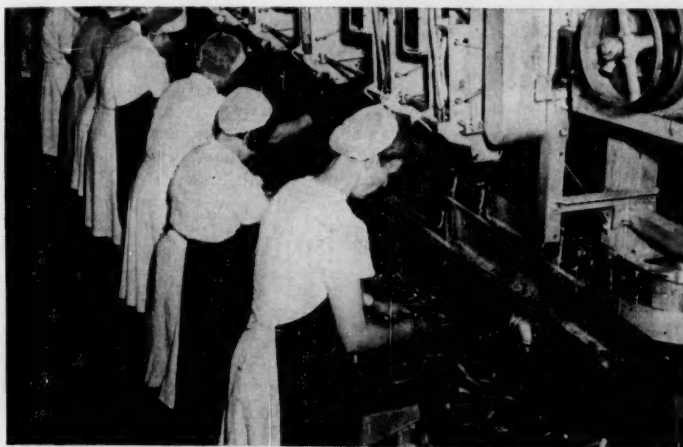
Pacific, with north-south and east-west branch lines; Western Pacific, main-line and east-west branch lines; Sacramento Northern Railway, interurban, and Central California Traction Company which connects with the Atchison, Topeka & Santa Fe Railroad.

The huge Southern Pacific railroad shops in Sacramento are the second largest in its system.

More than 30 trucking firms, all with terminal facilities here, serve this area and handle all kinds of merchandise. There also are a number of freight forwarders operating in the area. For urban transportation, Sacramento has a municipally owned bus system which consistently operates in the black.

The Sacramento airport is located within the city limits and is about ten minutes from the downtown area. The airport is served by United Airlines, Pacific Air Lines and West Coast Airlines, which provide around-the-clock schedules. A new municipal airport terminal building was built recently at a cost of more than \$500,000.

In addition to being at the crossroads of California's main north-south and east-west highways, Sacramento will be the hub of a greatly expanded highway system that is to be built during the next three decades. This is pointed up in a special report prepared by DeLeuw, Cather and Company, which shows that by 1980 some \$247 million will have been spent on major highways and freeways in the county. An additional \$18 million will be spent on unassigned street and road projects.



In the great diversity of economic activity in Sacramento, the food processing industry takes a major part since this area is in the center of a rich agricultural section. Shown here are workers canning asparagus.



The sprawling shops of the Southern Pacific Railway are an important part of the economy in the Sacramento area. Employing some 4,000 persons, this operation is the second largest of its kind in the United States.

Further, Sacramento has underway a project which will provide the area with a deep-water port, with 30-foot usable depth to Suisun Bay, some 40 miles distant. Work on the port should be completed by July, 1962.

The Sacramento-Yolo Port District includes all of Sacramento County and Supervisorial District No. 1 in Yolo County across the Sacramento River opposite the City of Sacramento.

The project was launched in 1949, with an initial Federal Government appropriation of \$275,000. Construction was stopped in 1951 as a result of the Korean War, but was resumed in 1956. The Federal Government estimates its cost of construction as of June 30, 1958, at \$41 million.

Currently, barge service along the Sacramento River connects the city with the port of San Francisco, and at the present time, agricultural products and petroleum products are the chief commodities using river transportation.

### Redevelopment

One of the most outstanding signs of constructive and aggressive activities in Sacramento is the city's extensive and ambitious redevelopment program.

Handling this program, and working closely with the city and county governments, is the Sacramento Redevelopment Agency. This separate entity is governed by a director of redevelopment and a five-man board of voluntary citizens.

Planning for the program was begun back in 1949, and during the years since then, the agency has worked out a multitude of details necessary for the complete redevelopment of a 99-block section in the West End of the city, in what has been designated as a blighted area.

This project will completely abolish the only slum section existing in Sacramento and will rebuild an area that was originally constructed in the old Gold Rush days.

It is estimated that new buildings in the first 15-block section now being redeveloped will represent a capital investment of more than \$30 million. The project is expected to pay for itself with millions of dollars in new tax revenues, added employment and increases in business.





A dredger is shown moving into position to begin dredging the 14-mile channel outlined by the dots in the picture. The channel, part of the long range Sacramento-Yolo Port District development, will connect the deep water turning basin in Lake Washington with the Sacramento River.



Redevelopment of 99 blocks in the older part of Sacramento is now underway. This model shows a garden apartment project, being developed by the firm of Stevens and Scheuer, upon which construction will begin in the spring of 1959.

The first new construction in the area already cleared is an ultra-modern, multimillion-dollar apartment building with 692 units. In a four-block area, the structure will have three high rise apartments of 164 units each, towering over 200 garden apartment units which will be incorporated in two and three-story structures. This project is being handled by the New York development firm of Stevens and Scheuer.

A huge hotel is also planned for the Capitol Mall project, and the Federal Government has allocated funds to construct an office building estimated to cost approximately \$11.5 million in the rejuvenated Capitol Mall area.

Further, other proposals for development of a large part of the area have been submitted by Webb & Knapp, nationally known firm. Their program will include new department stores, service shops and many other attractive facilities.

Thus, when the long-range redevelopment program is completed, Sacramento will have a completely new look, and will be in an even better position to continue the progressive pattern of activity that now characterizes the city.

#### Adequate Power

Electric power here is furnished by the Sacramento Municipal Utility Dis-

## SACRAMENTO COUNTY

trict, and the rates are lower than those in most other parts of the country.

To provide for future needs, the utility has under way a long-range project which will provide greatly increased generating capacity.

The main features of the project include three major dams, four powerhouses, six smaller diversion dams, transmission lines and access roads. Peak generating capacity will be more than 200,000 kilowatts, and the total annual output of the plants will exceed 900 million kilowatt hours.

According to Jas. E. McCaffrey, General Manager and Chief Engineer of the District, the area has one of the most modern electric distribution systems in the country since 85% of the system has been constructed since World War II.

It is expected that by 1960 the first units of the project will be completed, storing water and producing electricity. By the end of ten years, the finished project will be benefiting everyone in the area by its water conservation, power and recreational features.

The program for development of the water resources of the American River watershed is being financed through an issue of \$85 million in revenue bonds which was authorized in December, 1955, by an eight-to-one majority of the voters in the District.

Generally speaking, the major purpose of the project is to capture the energy produced by water rushing down the western slope of the high Sierras and to convert it into electric power which can be transmitted to the District for distribution to its customers.

SMUD has a 40-year contract with the U. S. Bureau of Reclamation for Central Valley Project power, but on the basis of present growth in demand for power, it is expected that available CVP supplies can meet the District's peak needs only until about 1960. As a result of this, and in addition to its own expansion plans, the District has contracted through 1971 for supplementary power from the Pacific Gas and Electric Company.

The latter firm supplies and distributes natural gas to this area, and gas is the cheapest fuel available. P. G. & E. has under construction a pipeline to carry gas from Alberta, Canada; and initial deliveries of 400 million cubic feet a day are expected by 1960. Thus Sacramento, as well as California as a whole, has adequate gas supplies for now and the future.

Latest available figures on employment in the city of Sacramento and in



the county showed approximately 175,000 workers on the job, with an average annual payroll totaling \$726,750,000. The totals cover civilian government workers and the military force in the area, as well as other types of employees.

Manufacturing activities provide employment for the largest single group of workers. The total is 23,000 employees in this field, with an annual payroll of \$95 million.

Altogether, Sacramento has a large and qualified labor pool to meet the needs of industry and a record of labor-management accord which has been outstanding.

It is particularly noteworthy that some 74 per cent of the area's workers are home owners, which gives them an added sense of worker responsibility to both their jobs and to the community.

As in all other industrial centers of the West, the area is generally unionized. Good labor relations are enhanced by the fact that local unions enjoy autonomy in union management, and many of the leaders participate in numerous civic activities.

Adding unusual strength to the city and county's economy is the "built-in" stability of employment provided by state government and the Federal Government, both civilian and military.

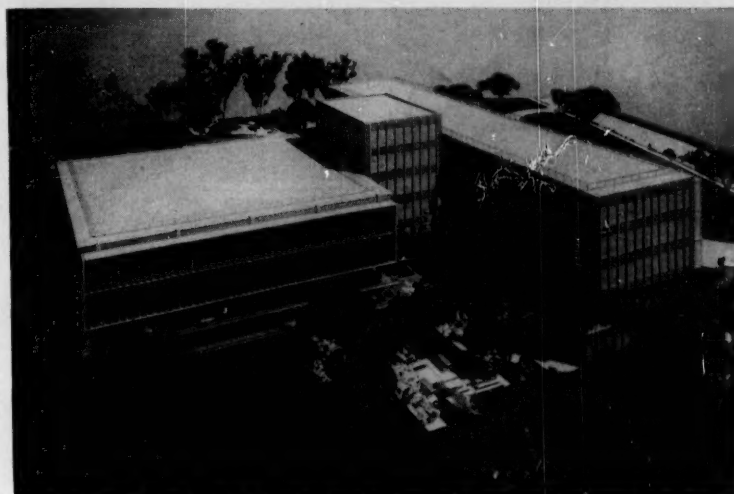
For example, civilian workers at McClellan Air Force Base, the Signal Depot, Mather Air Force Base, and the state, county, city and federal employees, now draw payrolls totaling \$232,400,000. The state alone, employing 19,200 persons here, provides an annual payroll of \$98,750,000.

The military personnel at Mather, McClellan, the Signal Depot and Navy installations draw an additional \$46,315,000 in annual payrolls.

As a result of this "built-in" stability, during the recession which occurred in the latter part of 1957 and early 1958 in many parts of the nation, the Sacramento area continued to enjoy good business and made gains in the face of declines in other areas.

In fact, in August of last year, Sacramento ranked as the top city in the nation from the standpoint of business gains over a year previous, according to Forbes, Inc. Business Trend Map. The city's gain was 18 per cent. The Forbes map showed also that Sacramento ranked among the top ten cities in the index for 11 of the 14 months prior to August.

One of the first cities in the nation to adopt the city manager form of



The Sacramento Municipal Utilities District, which supplies low-cost electric power to the area, will move into a handsome new headquarters building as part of its continuing expansion program. Shown is a model of the structure.

#### COMPARATIVE ELECTRIC RATES

Kilowatt Demand and Monthly Energy Use*		Sacramento Industrial Area†	Other Northern California Industrial Areas
150 KW	30,000 KWH	\$ 416	\$ 520
	60,000 KWH	574	783
	60,000 KWH	724	950
300 KW	120,000 KWH	998	1,436
	100,000 KWH	1,134	1,534
500 KW	200,000 KWH	1,570	2,318
	200,000 KWH	2,128	2,830
1,000 KW	400,000 KWH	2,986	4,343
	400,000 KWH	4,102	5,207
2,000 KW	800,000 KWH	5,731	8,217
	800,000 KWH	6,032	7,583
3,000 KW	1,200,000 KWH	8,477	12,091

\*Service conditions assumed for purposes of rate comparison: unrestricted lighting, heating and motive power; 4 kv delivery for loads to 300 kw, 12 kv delivery above; 85% power factor.

†Standard SMUD schedule with minor territorial differential, applies to all industrial service. Figures shown are based on the rural rate; urban rate is slightly lower.

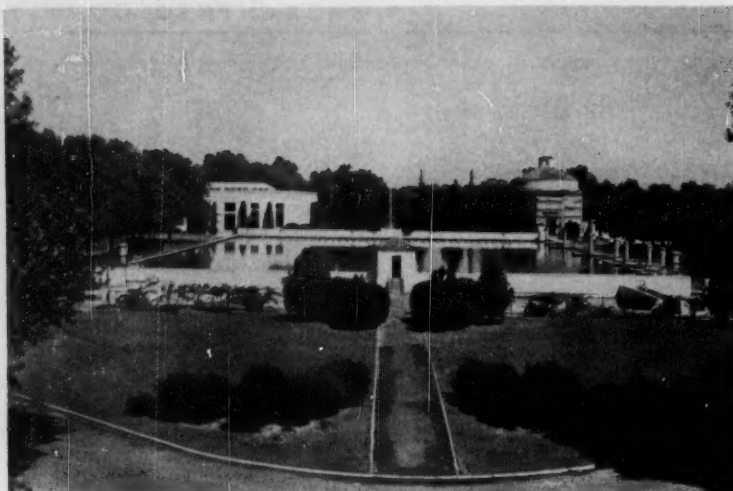
‡Includes San Francisco, Oakland, Richmond, Emeryville, San Jose, Stockton, Fresno, Antioch, Martinez, Pittsburg, South San Francisco and Sunnyvale.



McClellan Air Force Base has 5,200 military personnel, along with civilian employment totaling 14,500 persons. This official photograph of U. S. Air Force planes was made by McClellan Base photographers.



## SACRAMENTO COUNTY



An unusually attractive formal garden arrangement forms the setting for Sacramento's water filtration plant. This facility is typical of the many services offered by the municipality.



Another important service rendered by Sacramento for its citizens is the operation of a highly-efficient Sewage Treatment Plant which has a capacity of 86 million gallons a day. Shown here is a view of the administration building.

government, Sacramento has long enjoyed what Mayor Azevedo describes as "good, clean government." In addition to the city manager's administrative responsibility, nine councilmen sit as the governing body.

Noting that the city is in "a very strong financial position," the mayor adds that Sacramento has bonds outstanding in the amount of only 19 per cent of the \$46 million bonding limit.

The county has a five-man Board of Supervisors as the governing body, and the administrative side of the county is under highly experienced personnel, headed by the County Executive. The bonded indebtedness is one of the lowest in the state and amounts to only 14 per cent of the

total \$75 million bonding limit.

As a result of this efficiency in the administration of city and county governments, tax costs for services here compare most favorably with other cities on the Pacific Coast. These administrations also are providing constantly enlarged and improved facilities needed to meet the requirements of this rapidly expanding area at the lowest possible costs. The tax rate actually has been reduced each year for the past three years.

Among the many services maintained by the city is a modern primary treatment plant for sewage, which is a great aid to industry.

Sacramento is well protected by progressive and alert police and fire de-

partments.

There are approximately 275 persons engaged in law enforcement, and the department has 75 pieces of motorized equipment. The fire department has 257 employees, 11 stations and 31 pieces of motorized equipment.

Adequate health protection is given through the 1,626 beds available in hospitals here.

Excellent communications facilities here include two daily newspapers, one daily legal newspaper, and eight weeklies, along with six radio stations and two television stations.

### State Fair

One of the most interesting developments of the future will be the new 1,065-acre California State Fair and Exposition in Sacramento. It will open in 1961 as a \$30 million investment by the State of California—the most comprehensive initial financial support ever afforded an exposition in the Western Hemisphere.

Private capital investments may double the value of the Fair, and may include permanent industrial, scientific and commercial exhibits; river front and park developments; amusement and recreation areas; and special concession developments and improvements. The construction program calls for approximately \$20 million to be invested by the time the Fair is opened. The revenue from the sale of the present site will then be used for further construction in later years.

Although private capital will be invested in time for the initial opening, a ten-year program is planned that will allow industries considerable opportunity to increase their participation at the huge showgrounds which is four times the size of the present facility.

### Agriculture

It is a well-known fact that California leads the nation in agricultural wealth, and the great Sacramento Valley contributes a large proportion of that wealth. In fact, the nine counties in the Valley produce 40 per cent of all of California's field crops, 24 per cent of the fruit and nuts, 23 per cent of the state's vegetables and melons, and 18 per cent of its livestock. Further, there are more than a million head of cattle, sheep and hogs in the nine adjacent counties.

In Sacramento County alone, estimated gross returns from agriculture last year totaled \$53,337,133.

These farm products have provided



## SACRAMENTO COUNTY

and are continuing to provide excellent opportunities for food processing and kindred industries in Sacramento and the county.

This is reflected in the fact that during the past decade and a half there has been a very marked gain not only in the number of cases of fruits and vegetables packed in Sacramento but also in Sacramento's percentage of the state pack.

For example, in 1944 there were 58,218,425 cases packed in California and 7,869,576 in Sacramento, the latter being 13.52 per cent of the state total. Ten years later Sacramento packed 19.80 per cent of the state total, or 16,480,000 cases out of California's total of 83,212,543.

Continuing this spectacular gain, plants in Sacramento during 1957 packed 37,500,000 cases which amounted to 33.66 per cent of the state total of 111,399,485 cases.

Forest resources in the foothills and mountains surrounding the Sacramento Valley include Douglas Fir, Ponderosa Pine, White Fir, Cedar, Sugar Pine, Red Fir (Silver Tip) and Redwood. The reserve totals almost 120 billion board feet.

With the transportation facilities and favorable rates available in the Sacramento area, this section is in a strategic position for the development of wood products, as well as for industries utilizing these products. Nearby mills supply pine to all the 48 states, and Sacramento is the gateway to the Pacific Northwest and its unlimited timber.

Actually, 88.4 per cent of California's total lumber production is located within 200 miles of Sacramento. For instance, U. S. Forest Service figures show that of a production of 5,881,465,000 board feet annually in California as a whole, 5,200,522,000 board feet came from within 200 miles of here.

Although Sacramento's fame was earned first as the focal point for the great Gold Rush to California, gold today is only one of the several score of both precious and commercial minerals which are mined in the surrounding valley and mountains. And, of the 58 counties in California, Sacramento County ranks among the top ten in the value of its mineral production.

In Sacramento County alone, gold is being dug on an around-the-clock basis, and the yield is about \$1,000 worth a day. The digging is done by



three spectacularly huge dredgers which are being operated in the vicinity of the Aerojet and Douglas plants.

The major portion of California's largest natural gas field, the Rio Vista field, lies within Sacramento County, and this accounts for the abundance and low cost of the gas here.

Altogether, 52 commercial minerals are found in California. Of these, to be found in abundance near Sacramento are raw clay, gold, sand and gravel, natural gas, silver, chromite, crushed stone, lime, limestone, slate, soapstone, asbestos, and granite.

### Industrial Parks

A major aid and attraction to industry are the several planned industrial districts in the Sacramento City-County area. Included in these districts are the Lawrence Industrial Tract, Johnston Industrial Park, Wesrobla Industrial Park, and Erickson Industrial Park.

### Gross Returns From Agriculture Sacramento County

1957

Poultry & Eggs	\$ 4,996,525
Livestock & Dairy	15,308,000
Vegetables & Seed	4,793,794
Fruits, Nuts & Berries	7,668,206
Field Crops	20,680,608
<b>Total</b>	<b>\$53,447,133</b>

The Lawrence tract is located in the fast-growing area of Southeast Sacramento. It is ideally suited for light or heavy industry and warehousing facilities, and all utilities are available.

This tract is served by the Southern Pacific Railroad, and it also is at the crossroads of the major east-west transcontinental routes as well as the north-south line serving the entire Pacific Coast.

Developer of the Lawrence Tract is the Fruitridge Development Company, Inc. headed by Carl E. Lawrence, prominent civic leader and past president of the Sacramento City-County Chamber of Commerce. He is also president of the Lawrence Construction Company. The company not only offers sites but also package deals in which it will build to the tenant's specifications on contract or lease back bases.

The Johnston Park has 130 acres of area and is located on the south side of U. S. Highway 40 at Canterbury Road. It is adjacent to the main lines of both the Southern Pacific and Western Pacific and is served by both.

Emphasis in the park is on attractive buildings and efficient transportation. All sites are graded, with streets and all utilities available.

Property in Johnston Industrial Park is being offered by its developers, Coldwell, Banker & Company, on a





Located in the beautifully landscaped Erickson Industrial Park in Sacramento are Norco Distributing Company and, shown in the background, Continental Baking Company. Several industrial parks in the area feature extensive landscaping around the various installations located in each.



This attractively designed building of the Goodyear Tire and Rubber Company is in the Johnston Industrial Park just north of the city.



This aerial view shows the 26,000 square foot warehouse and office building recently completed for United Grocers, Inc. in the Lawrence Tract. In the background is the Procter and Gamble plant.

build-to-suit and lease basis. Thus a long-term lease can be arranged on a building built to your specifications on the site of your choice.

Wesrobla Industrial Park is in the center of the expanding north area—adjacent to new government warehouses and the giant McClellan Air Force Base. The park is well situated for light or heavy industry and ware-

housing facilities and is developed as a fully planned district.

Wesrobla is served by the Western Pacific Railroad through their Sacramento Northern line. It also has adequate highway facilities and all utilities are available. Developer of Wesrobla is Sigmund Levin of Los Angeles.

Described as rating "tops in planning, location and facilities," Erickson

## SACRAMENTO COUNTY

Industrial Park has been planned both for today's needs and tomorrow's expansion.

It is located adjacent to rail and freeway routes and is only minutes away from metropolitan and suburban residential areas. The Erickson Park offers complete facilities for manufacturing, distributing, or warehousing operations. Sites are available now.

A number of outstanding national, as well as regional, firms already are located there. Developer is Frank E. Erickson, president of the Erickson Construction Company, which also will build to the tenant's specifications on contract or lease back basis.

### Aid To Industry

When you, the site-seeking industrialist, come to Sacramento for a look around, you will find here an enthusiastic team of specialists who are on call to provide you with authoritative answers to every conceivable question you might have.

These men, all experts in their specific fields, come from the ranks of city and county governments, railroads, utilities, real estate, labor, education, industry, finance and the Sacramento City-County Chamber of Commerce. They comprise the 26-man Sacramento Area Industrial Development Board, an organization which is the brain child of, and is allied with, the Chamber.

However, the group is wholly independent of the Chamber in policy decisions, and its membership has no axe to grind. Its objectives are:

1. To review at regular intervals the community's industrial potential and take concerted action to correct deficiencies that may seriously deter the area's growth.

2. To make its services available as a group or individually on request to existing and prospective industries in all fields of industrial development.

John H. Diggs, chairman of the Chamber's Industrial Committee and a member of the Area I. D. Board, declares that Sacramento and the County have "one of the finest industrial development teams in the nation."

Mr. Diggs, a prominent banker here, points out that various members of the team make periodic trips to other areas to study their development methods and how they cope with the various problems which occur as a result of



industrial growth.

He stresses, too, that the Chamber's Service to Industry Committee is doing a top-notch job in giving aid and counsel to existing industry. Two teams a week from this group call on plant executives in the metropolitan area, giving help on problems and generally keeping up-to-date on a program of mutual cooperation.

### Education

Sacramento is fortunate in having a relatively new and rapidly growing four-year institution of higher learning, Sacramento State College.

Established by an act of the California Legislature in 1947, the college now has a faculty of nearly 300 and a total enrollment of approximately 6,700 students.

It occupies a new campus of some 260 acres and is rapidly developing the physical plant. The latter already has involved an outlay of about \$17.5 million, and ultimately will represent an investment of from \$25 to \$30 million.

The wide range of curricula offered includes liberal arts, professional work for teachers and nurses, public admin-

istration, business administration, engineering, and others.

Dr. Guy West, president of the college, points out that the fast developing interest on the part of industry in locating plants in the Sacramento area has made it necessary and desirable for the school to offer courses in the field of engineering, as well as in the fields of related sciences—mathematics, statistics, physics and certain aspects of electronics especially as related to mathematical computation and data-processing in business.

### SACRAMENTO CITY-COUNTY POPULATION

With Estimates For Future	
Year	Population
1950	277,140
1951	295,733
1952	314,326
1953	332,919
1954	349,500
1955	368,300
1956	388,700
1957	407,300
1958	452,000
1965	665,000
1980	1,260,000
2000	2,400,000

Currently on the drawing board are plans for a very modern engineering building which should be ready for occupancy within the 1959-60 school year. With equipment, it will cost approximately \$3.5 million.

Of particular interest to industrialists is the fact that the new facilities are expected to take care of 750 majors in engineering.

Dr. West says: "It is the policy of the state and of the faculty and staff of the college to study continuously the needs of the surrounding area and to adapt the educational program of the college as closely as possible to these needs."

The University of California at Davis, 14 miles west of Sacramento, further enhances the educational background of the Sacramento area. It includes a College of Agriculture; Veterinary Medicine, Agricultural Engineering, and College of Letters & Science.

Industrialists are assured, too, that their children and the children of their employees here will get the best in elementary and high school educations.

In the City of Sacramento, for example, there are 31 elementary schools



Fast-growing Sacramento State College now has an enrollment of approximately 6,700 students. When its present building program is completed the college will represent an outlay of between \$24 and \$30 million. This picture shows activity around the Audio-Visual Center at the institution.



# BEFORE .....



This picture, showing mostly wide open spaces and farm land, was taken over the River Park section of Sacramento in 1946. It was considered then a prime area for residential development.

# ..... AFTER



In great contrast to the picture at left is the one above taken of the identical area in 1956. This is a typical illustration of the growth of residential development in Sacramento's metropolitan area.

strategically placed to serve all sections. They have excellent teachers and physical facilities.

The city has a junior college, eight junior high schools, one of which is brand new, and three high schools, one of which is also brand new.

The county has 96 elementary and junior high schools, along with nine high schools. Two of the latter have just been built. There also is a recently completed suburban junior college.

In the category of parochial schools, the city has eight elementary schools, while the county has five, and there are five parochial high schools in the area.

## Cultural Background

In addition to its fine colleges and schools, Sacramento has a strong background of cultural activities for all age groups. In fact, the community has demanded such facilities since the early Gold Rush days when the Crocker Art

## CLIMATE

Sacramento's climate is mild, with predominantly clear, dry weather. In the warm summer period, the nights are cool. Winters are moderate, with no snow or ice. Mean annual temperature—60.4 degrees. Average annual rainfall—18.05 inches. Average annual number of days with rainfall—57. Average annual number of clear days—230. Average relative humidity at 4:30 a.m.—83; 10:30 a.m.—60; 4:30 p.m.—46, and 10:30 p.m.—74.

Gallery was established as the first such facility west of the Mississippi.

Many community groups stimulate interest in the classical side of culture. During the summer months a ten-week series of light operas is presented in the Music Circus Series.

In recent years the cultural picture has been rounded out by the development of productions by the junior colleges and the state college. Art and sculpturing are encouraged through adult education classes, besides the classes available at the higher educational institutions.

The active cultural groups include Eaglet Theater, Jay-Rob Productions, Children's Theater, Sacramento Junior College Productions, Sacramento State College Productions, Sacramento Philharmonic Chorus, Community Concert Series, Tuesday Club Programs, Celebrity Series, Music Circus Series, Armchair Cruise Series, Women's Forum, Opera Guild, Philharmonic Association, Saturday Club Series,



Crocker Art Gallery, Symphony League, Junior Museum, and Sutters Fort and Indian Museum.

There are also several theaters and auditoriums of various sizes. Memorial is the largest auditorium, with a seating capacity of 5,000. Hughes Memorial Stadium will accommodate 24,000, while the Solons Baseball field seats 12,000. The popular El Dorado Convention Hall will take care of 1,200.

Last year, Sacramento attracted 76 conventions which brought 47,820 persons to the city.

Offering 378,881 volumes in the City of Sacramento are one main library with five branches, and two bookmobiles. The 30 branches in the county area outside the city offer 130,000 volumes.

Being only a short distance from San Francisco, many people in Sacramento avail themselves also of the additional cultural activities which are in the Bay City.

### Recreation

The Sacramento area abounds in recreational facilities—both man-made and natural—and offers unlimited opportunities for out-of-door relaxation.

Water enthusiasts, whether they be fishermen or aquaplaners, find particular delight in the 1,500-mile network of the area's waterways and the facilities of the nearby lakes at Nimbus and Folsom Dams.

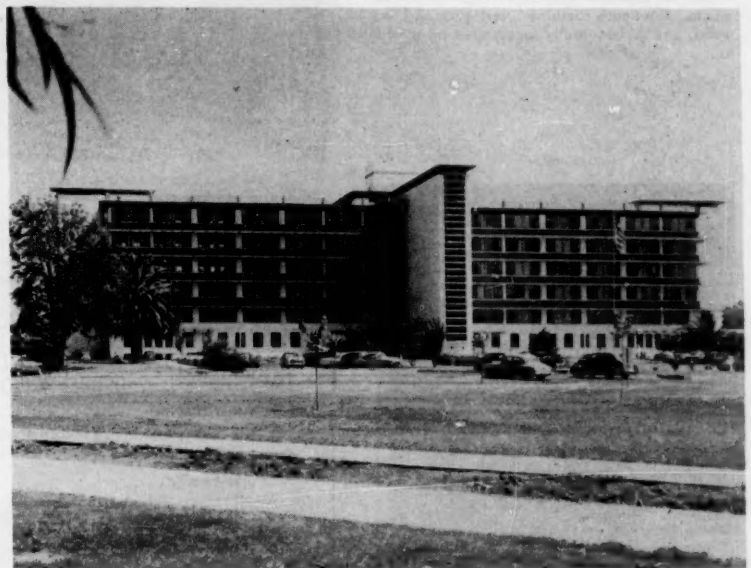
The Sacramento and American Rivers, with their many tributaries, and the Delta Channel provide excellent fishing for striped bass, black bass, catfish, sturgeon, salmon, steel head and shad.

When the park construction project presently underway in the Folsom Lake area is completed, more than 1,200 additional acres will be available for camping, picnicking, fishing, and boating. Launching ramps are already being used by boaters.

The City of Sacramento maintains 34 playgrounds in its many parks, as part of its excellent youth recreational program. In these parks may be found six swimming pools, numerous baseball diamonds and three golf courses. At present four city-owned courses, two private courses, and the nine-hole course at Mather Air Force Base offer ample facilities to golf enthusiasts. Many private swimming and tennis clubs may also be found in the county.



The stately palm trees which are typical of Sacramento set off beautifully the modern building of California's Department of Employment.



The General Hospital is one of the many services available to the citizens of the City and County of Sacramento. The handsome building houses the latest in medical equipment.

Some of nature's most dazzlingly beautiful wonders on the North American continent lie in close proximity to Sacramento. World-renowned Lake Tahoe is a summer and winter playground of exceptional popularity. Dotted along its scenic shores are many attractive resorts and eating places. Another outstanding spot, Yosemite National Park, one of a number of state and national parks in the Sierras, lies southeast of Sacramento, and also offers to the out-of-door en-

thusiasts a marvelous background of overwhelming beauty for camping and sports the year-round.

The snow-covered Sierra Nevadas provide, of course, excellent winter sports areas. Within this radius is the site of the 1960 Winter Olympics at Squaw Valley.

Within easy accessibility of Sacramento are many landmarks of the vivid gold-mining days, which offer a rich contrast of the old and new to the exploring-minded.

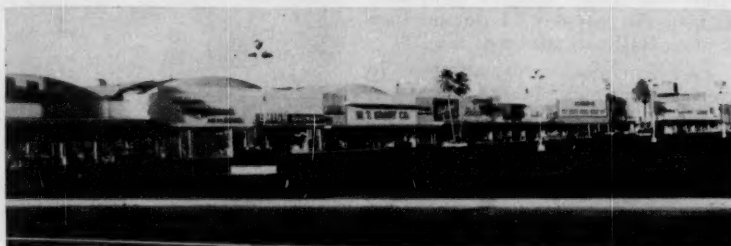


## SACRAMENTO COUNTY

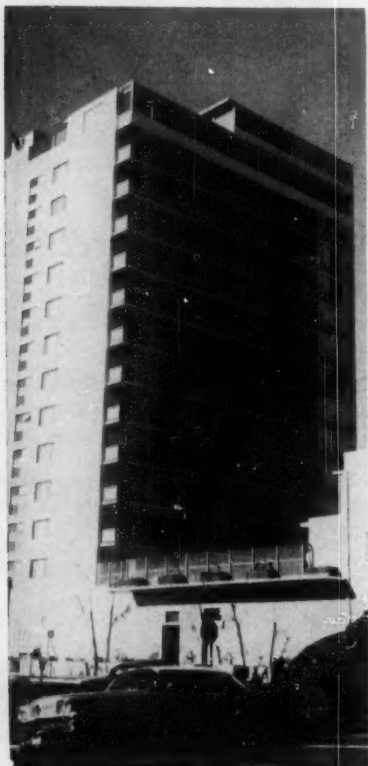
Estate-type homes such as this one may be found throughout the area and again illustrate the beauty of wide green lawns as a result of the abundant, low-cost water in Sacramento.



Huge modern shopping centers like the one shown at right have mushroomed throughout the suburban area in recent years. Parking space for more than 7,500 automobiles is provided in this particular center.



Typical of California ranch-type homes is this attractive structure shown at right in Sacramento. The house combines used brick and redwood, and is beautifully landscaped on a wide lot.



← This newest addition to Sacramento's multi-storied hotels was completed early in 1958. The upper floors have a spectacular view of the Capitol Building and 40-acre park. The city also has a number of garden-type motels.

### METROPOLITAN SACRAMENTO AREA DWELLING AND COMMERCIAL UNITS

Nine Months  
January through September 1958

	1957	1958	Change
<b>Sacramento (city)</b>			
Single Family	650	886	236
Duplexes	30	80	50
Apartments, Motels	31(218)	46(481)	15(263)
Total Dwelling Units	928	1,527	599
Total Value	\$ 9,531,127	\$14,576,437	\$ 5,045,310
Value Commercial Units	\$ 2,324,481	\$ 7,565,700	\$ 5,241,219
Total Building Permits	\$17,923,268	\$25,999,802	\$ 8,076,534
<b>*Sacramento County</b>			
Single Family	2,290	4,611	2,321
Duplexes	46	65	19
Apartments, Motels	28(359)	54(738)	26(379)
Total Dwelling Units	2,726	5,487	2,761
Total Value	\$26,425,904	\$52,760,659	\$26,334,765
Value Commercial Units	\$ 7,256,013	\$ 8,470,788	\$ 1,214,775
Total Building Permits	\$60,082,955	\$78,251,837	\$18,168,982
<b>City &amp; County Total</b>			
Single Family	2,940	5,497	2,557
Duplexes	76	145	69
Apartments, Motels	59(577)	100(1,219)	41(642)
Total Dwelling Units	3,654	7,014	3,360
Total Value	\$35,957,031	\$ 67,337,106	\$31,380,075
Value Commercial Units	\$ 9,580,494	\$ 16,036,488	\$ 6,455,994
Total Building Permits	\$78,005,223	\$104,251,639	\$26,245,416

\*Includes North Sacramento.

14. October 1958

Research Department



## SACRAMENTO COUNTY

### History

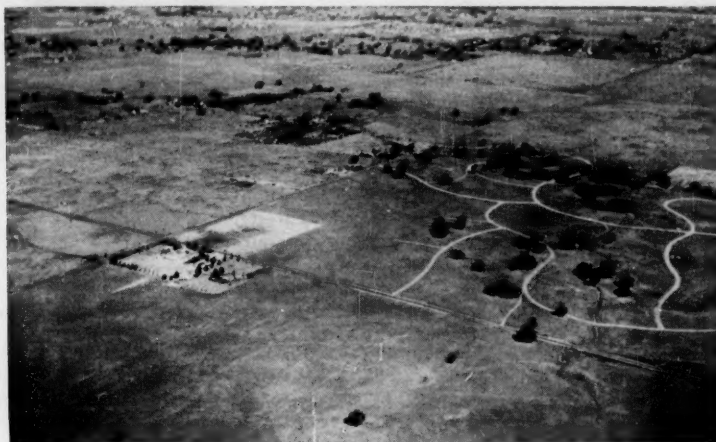
Shades of the colorful history of the era will be revealed on a trip to the Mother Lode country just East of Sacramento County. To be found there are two of the world's deepest mines—the Argonaut 6,600 feet, and the Kennedy, 5,500 feet. In the small community of Angel's Camp is a bar claimed to be the scene of the original "Jumping Frog" episode recounted by Mark Twain.

The site of the gold discovered by James Marshall in January of 1848 is seven miles outside the foothills community of Placerville, 50 miles South of Sacramento.

An outstanding symbol of one of the nation's most colorful and exciting eras is Sutter's Fort, erected between 1839 and 1844 by Captain John A. Sutter. Now a museum and Sacramento show-place only a few blocks from downtown Sacramento, the Fort daily attracts tourists from throughout the nation.



Part of the high Sierra Nevada Range, boasting some of the most spectacular scenery on the North American continent, is but a short drive from Sacramento. The mountains offer opportunities for year around recreation. Here a pair of skiers view a typical winter scene.



The above aerial view is of the area surrounding Arden School as it looked in 1947. The picture below, made of the same area in 1957, shows dramatically how population has grown in the Sacramento area.



### They Say . . .

M. D. Tarshes, County Executive, County of Sacramento, puts it this way: "It is one thing to make a trite statement that a community welcomes industry. It is something else again for local government to put teeth into these words through positive cooperative action. Here in Sacramento County we do our utmost to assist industry with the many complex problems involved in new plant moves. More than that our interest does not lag once a plant is located here."

When Defense Secretary Neil H. McElroy was president of Procter & Gamble Manufacturing Company, he had this to say about P&G's Sacramento site "We are very pleased with locating in Sacramento. Economically it was a good decision. Sacramento has good climate, good transportation, and a good supply of labor. Good roads for truck deliveries made it a location which seemed excellent when we were looking for a plant site, and it turned out to be just that."



# The Sacramento City-County Chamber of Commerce Philosophy On Industrial Promotion:

## —Dependability—

**T**HIS we believe:

That the industrial executive who is investigating sites for a manufacturing, assembly, processing or distributive industry has every right to expect a wholly factual, honest and intelligent appraisal of the industry potential of *any* community from which he seeks information.

That his request for information must at all times be treated in strict confidence without exception.

That because of the numerous variables in industries' prime needs covering such factors as raw materials, low cost power, ample water, markets, labor, and other pertinent prerequisites no one community can claim to be the best location for *every* industry.

That a critical review of the basic industrial factors which dictate a company's policy in a new site selection would how, however, that the Sacramento Metropolitan Area is an excellent location for almost any industry and the best location for some.

That exaggerated claims which cannot be backed by indisputable supporting evidence have no place in a presentation designed for busy and intelligent executives.

That when an error in presenting data about the community's potential is made in good faith, it should be corrected promptly regardless of its adverse effect on any current negotiations.

That the industrial prospect, at his request, be placed in contact with other companies in the area in order that he might get first-hand and unbiased information about the community's potential and industrial climate as seen through the eyes of existing industries.

That the chamber representative in his contacts with industrial prospects consider himself an unpaid member of the staff of the industry which he is servicing, exert every effort to insure the prospect equitable treatment in all negotiations leading to the selection of a plant site and that thereafter the chamber representative continue to provide all services with the same diligence on a continuing basis as he did in attempting to interest the firm in his community in the first instance.

That in its zeal to attract new industry to an area, the chamber of commerce must never neglect its responsibilities to established companies, which have long contributed to the area's economic well-being. A new industry cannot be expected to prosper to the fullest extent in an industrial climate unfavorable to established firms.



# Manufacturers record

NATIONAL MAGAZINE OF PLANT LOCATION NEWS

## EXPANSION BRIEFS

**PLAINFIELD, N. J.** A new Carter Products plant under construction here is scheduled for completion in the Summer of 1959. Steelwork was started last month on the first \$3.5 million unit of the facility. The structure will be on a tract of 150 acres and will have 250,000 square feet of floor space. It will contain manufacturing, shipping and warehousing facilities for all Carter toiletry and proprietary products.

**COLORADO SPRINGS.** The Colorado Springs Industrial Foundation has acquired 150 acres of land here as the location for an industrial district. Located northwest of the city limits, the district will be known as Pikes Peak Industrial Park. Rail facilities to the new area will be provided by an extension of nearby tracks of the Denver and Rio Grande Western Railroad, and plans for development of the entire industrial park area are now in preparation by a local engineering firm.

**DALLAS.** The Great Southwest Distribution Center, being built at a cost of approximately \$20 million, will go into operation here about January 1. Located in the Great Southwest Corporation's 5,000-acre industrial district, the installation will serve as a distribution center for the entire Southwest, a factory warehouse in support of nearby manufacturing plants and a transit storage point for inter-regional traffic.

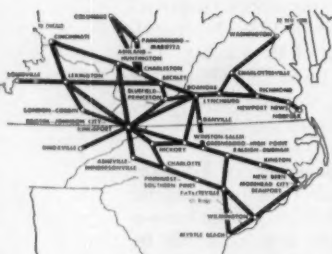
**MIDDLETOWN, OHIO.** Linde Company, division of Union Carbide Corporation, is building a 130-ton a day oxygen plant for the Middletown works of Armco Steel Corporation. It will be on property leased from Armco. All of the oxygen from the unit will be high purity gas, piped to various locations at the Armco Works here.

**FRESNO, CALIF.** Ground was broken last month for the initial unit of an eventual \$2 million plant for International Paper Company at its Fresno installation. The new facility ultimately will have three units and will employ some 150 persons. Completion of the first unit is scheduled for next Spring.



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**WILMINGTON, DEL.** Acquisition of 1,800 acres of land along the Delaware Bay just north of Lewes has been announced by Hercules Powder Company. Hercules' Chief Executive Albert E. Forster said the company had no plans at present to build a plant on the site but feels that the property provides it with an outstanding location for possible future expansion.

**ATLANTA.** Atlanta Wire Works, Inc., is building a new factory in Clayton County. The installation will manufacture wire cloth to serve the paper industry in the South. Associated with the Johnson Wire Works Ltd. of Canada, the project here represents an entirely new industry for this area.

**ANN ARBOR, MICH.** The entire Ball and Bearing Division of the Hoover Ball and Bearing Company has been moved to a new plant on a 90-acre rural tract just south of the city limits here. With 200,000 square feet of floor space, the facility cost more than \$3.5 million. The plant provides employment for more than 750 persons.

**JAMAICA.** A new primary textile mill, which will represent an investment of more than \$7.5 million, will be established here, according to Wills O. Isaacs, minister of trade and industry of the Government of Jamaica. He said the new facility will have about 150,000 square feet of floor space on a 15-acre site. The minister added that during the first eight months this year the island had attracted 90 new industrial plants, as compared to 48 new factories established in 1957.

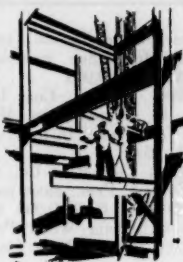
**NEW YORK.** Air Reduction Company, Inc., and The Mastic Tile Corporation of America have formed a new firm, Cumberland Chemical Corporation, for the production of materials for use by Mastic Tile in manufacturing floor coverings and other building construction products. The new company will build at Calvert City, Kentucky, a plant to produce vinyl chloride monomer and vinyl chloride polymer. The plant will cost approximately \$10 million.

**GREENDALE, WIS.** The Nuclear Power Division of Allis-Chalmers Manufacturing Company has moved into new laboratory and administrative quarters here. The two buildings in the facility each have about 23,000 square feet of floor space and are on a 30-acre site.

**VANCOUVER, B. C.** A plant to produce shipping pails for paints, chemicals, adhesives, oil and other products has just begun production in this Canadian city. Operated by Vulcan Containers, Inc., of Bellwood, Illinois, the plant is the first steel pail manufacturing facility in Canada's Pacific Coast.

**HOUSTON.** Reichhold Chemicals, Inc., will build in Houston a \$1 million plant for the production of synthetic resins. To be on a 20-acre tract, the plant will be ready to begin operations in mid-1959. It will produce a full line of resins, including alkyds, polyesters, and emulsions, for use in the paint, aircraft, petroleum, boat and housing industries in the Houston area.





## NEW PLANT SUMMARY

BY JOSIE QUILTY

The following is a summary of major industrial plants reported to INDUSTRIAL DEVELOPMENT during the month of August, 1958, by industries and industrial development organizations in the United States, Canada, and territories.

Number of employees is indicated by the code: A (under 25); B (25-100); C (100-250); D (250-1,000); and E (Over 1,000).

### ALABAMA

Birmingham—Dewberry Engraving Co., 4th Ave. and 32nd St., James W. Dewberry, Pres., engraved stationery, wedding invitations. Relocation in city. Under const. \$2 million. (D)

Huntsville—Linde Div., Union Carbide Corp., J. C. Hadley, Gen. Mgr., has taken option on site for plant to produce liquid oxygen, nitrogen and argon.

Huntsboro—Huntsboro Oak Flooring Co., water skis. In oper.

### ALASKA

No plants reported.

### ARIZONA

Chandler—Southwestern Agrochemical Corp., C. P. Gould, Pres., anhydrous ammonia plant planned. \$4 million. (B)

Clarksdale—Riverside Cement Co., cement. Subs. of American Cement Corp. Oper. est. to begin Aug., 1959. \$11 million. (C)

Phoenix—B. F. Goodrich Tire Co., Third St. and Henshaw Rd., R. W. Simpson, Mgr.; tire retreading. In oper. 10,000 sq. ft.

### ARKANSAS

Conway—Baldwin Piano Co., Harkrider St., John Jordan, Vice Pres., model spinet pianos. Home office: Cincinnati. Oper. est. to begin early 1959. 50,000 sq. ft.

Corning—Johansen Bros. Shoe Co., women's shoe mfg. plant planned. Home office: St. Louis. (C)

Jonesboro—Crowley Ridge Concrete Products, Inc., Ray D. Pile, Owner, concrete grave vaults. Oper. began Oct., 1958. (B)

Pocahontas—Country Club of Arkansas, Inc., Bent Hotze, Pres., golf bags, bowling ball bags, other sports equip. Subs. of Henry Hotze & Sons, St. Louis. Oper. est. to begin late 1958. (B)

Van Buren—Arkholia Sand & Gravel Co., R. N. Dills, Pres., street and highway construction materials.

Warren—Wilson Oak Flooring Co., Sykes Harris, Mgr., "True Parquet" oak flooring. Home office: Dallas. Oper. began Oct., 1958. (B)

### CALIFORNIA

Anaheim—Interstate Electronics Corp., Paul H. Reedy, Pres., engineering office. Under const. 15,000 sq. ft.

Burlingame—American Can Co., California and Trousdale Drs., D. R. Black, Mgr.; data processing center. Oper. est. to begin early 1959. 11,000 sq. ft. (B)

Fresno—Valley Nitrogen Producers, Inc., Carl H. Haas, Pres., fertilizer cooperative. Under const. \$8.5 million. (B)

Hayward—Andre Paper Box Co., Noble Andre, Pres., has purchased 54 acre site for new plant.

Hayward—Dreamland Bedding Co., Clawitter Rd., mattresses. Under const. \$300,000.

Los Angeles—U. S. Steel Supply Div., U. S. Steel Corp., 2087 E. Slauson Ave., F. J. Bruckner, Mgr.; sheet processing bay. Oper. est. to begin early 1959. 45,023 sq. ft.

Marysville—Sacramento Box & Lumber Co., Feather River Blvd., J. D. McCann, Off.; finished lumber. In oper. (B)

Monrovia—Applied Physics Corp., 2724 Peck Rd., Howard Cary, Pres.; precision instruments. In oper. 50,000 sq. ft.

Napa—Newrad Co., Jackson St., Richard J. Rader, Pres.; German process mfg. of plywood and hardboard containers. Oper. began Oct. 1958.

Newport Beach—Aeronutronic Systems, Inc., Gerald J. Lynch, Pres., computer and electronics bldg. Subs. of Ford Motor Co. Oper. est. to begin Aug., 1959. 115,000 sq. ft.

North Hollywood—Adolph's Food Products Mfg. Co., 5354 Denny St., Lawrence E. Deutsch, Gen. Mgr.; meat tenderizer, dietetic products. Relocation in city. Under const. 25,000 sq. ft.

Oxnard—Statham Industries, Inc., Hwy. 101-A, Louis Statham, Pres., electronic equip. for missiles and aircraft. Under const. \$1 million. (D)

Pacoima—Sundstrand Machine Tool Co., 10445 Glenoaks Blvd., Richard H. Olson, Vice Pres.; research and development of missile accessory power supplies. Oper. est. to begin late 1958. 12,000 sq. ft.

Pinedale—International Paper Co., Arthur B. Damon, Gen. Mgr., sheet plant for mfg. of corrugated containers. Ltd. oper. est. to begin spring, 1959. 27,000 sq. ft. \$2 million. (C)

Redwood City—Hodges Chemical Co., 1801 Spring St., William C. Hodges, Pres.; resin application. In oper.

Rodeo—Union Oil Co., asphalt blending plant. Oper. est. to begin April, 1959. (B)

Sacramento—California Steel Warehouse, Inc., 3000 Power Inn Rd., Harold H. Sorensen, Gen. Mgr.; warehouse, office. Oper. est. to begin late, 1958. 21,000 sq. ft. \$200,000.

Sacramento—Comstock Steel Co., Inks Industrial Tract, Howard K. Brown, Pres.; warehouse. Home office: Phoenix. Oper. est. to begin Nov., 1958. 21,000 sq. ft.

Sacramento—Martin Sprocket And Gear Co., Inc., 11th and R Sts., Joe R. Martin, Pres.; gears, sprockets. Home office: Arlington, Texas. Oper. began Oct., 1958. 12,800 sq. ft. (B)

San Carlos—Eitel-McCullough, Inc., Industrial Way, electron-power tubes. Moving from San Bruno. Full oper. est. to begin early 1959. 150,000 sq. ft. \$2 million. (D)

San Carlos—General Dynamics Corp., Liquid Carbonic Div., electrolytic hydrogen and oxygen. In oper. \$1 million.

South San Francisco—Cadillac Plastics Co., Utah Const. Co. Ind. Park, 311 Corey Way, Frank M. Hunt, Mgr.; Western plastic

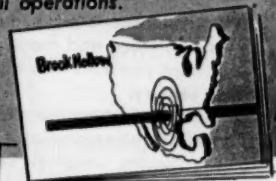


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(Wilkes-Barre Area)

New Bulletin No. 47, describes DIAMONTEX Perforated Metal Lay-in Panels for Modern Acoustical Ceilings.

**NEW PLANTS**

sales and dist. center. Div. of Dayton Tire & Rubber Co. Moving from San Francisco. Oper. began Oct., 1958. \$500,000.

San Jose—Mohawk Packing Co., 1660 Bayshore Hwy., C. B. Bonnici, Gen. Mgr., packer and dist. of fresh meat. In oper. 30,000 sq. ft. \$250,000. (B)

San Rafael—Mission City Meat Co., 659 Irwin St., Hugo T. Lenci, Pres., meat packing. Under const. 14,000 sq. ft. \$200,000. (B)

Sonoma County—California Wood Products, Industrial Center, Rohnert Park. Under const. \$250,000.

Stockton—Mexico Refractories Co., W. Basil Leach, Pres. Under const. \$2 million.

West Sacramento—Northern California Euclid, Inc., Steve Collins, Mgr., heavy road equip. dist. and service hdqrs. Under const. 17,000 sq. ft. (B)

**COLORADO**

Canon City—Cotter Corp., David Marcott, Vice Pres., uranium concentrator. In oper. \$700,000.

Crested Butte—Standard Uranium Corp., Micawber Mine, ore mill.

Denver—Air Reduction Sales Co., 2457 W. 2nd Ave., William O. Brown, Mgr.; oxygen, nitrogen, liquid nitrogen. Home office: New York. Oper. est. to begin Jan., 1959. \$600,000.

Ft. Collins—Valley Packing Co., plant planned. \$250,000.

Greeley—Capitol Packing Co., meat packing and processing. Oper. est. to begin mid-1959. \$1 million. (D)

**CONNECTICUT**

Colchester—Star Finishing Co., Inc., Jack Rosen, Pres., textiles firm formed, plant.

Danbury—Viking Wire Co., Shelter Rock Rd., Herbert Mayer, Chmn. of Bd.; wire for electronics application. Relocation in city. Oper. est. to begin spring, 1959. 40,000 sq. ft. \$500,000. (B)

Greenwich—United Aircraft Corp., Erle Martin, Vice Pres., seeking site for research center. \$6 to \$10 million.

Ridgeville—Ullman Devices Corp., Danbury-Norwalk Rd., Robert Ullman, Pres.; magnetic tools, inspection tools, electric hair dryers, fire alarm devices. Moving from Norwalk. Oper. est. to begin late 1958. 15,000 sq. ft. (B)

Windsor—Combustion Engineering, Inc., Nuclear Div., Prospect Hill Rd., George M. Chambers, Gen. Mgr. In oper.

**DELAWARE**

Dover—Eastern Shore Natural Gas Co., Lewis Mullin, Off., natural gas distributors. Oper. est. to begin late 1958. \$3.3 million. (B)

Dover—International Latex Co., Frederick W. Andrews, Vice Pres., research lab. Oper. est. to begin Jan., 1959. \$750,000. (C)

**DISTRICT OF COLUMBIA**

Washington 3—Henry B. Gilpin Co., 411 S. Capitol St., James E. Allen, Pres.; wholesale drugs, cosmetics. Oper. began Oct., 1958. \$500,000. (B)

**FLORIDA**

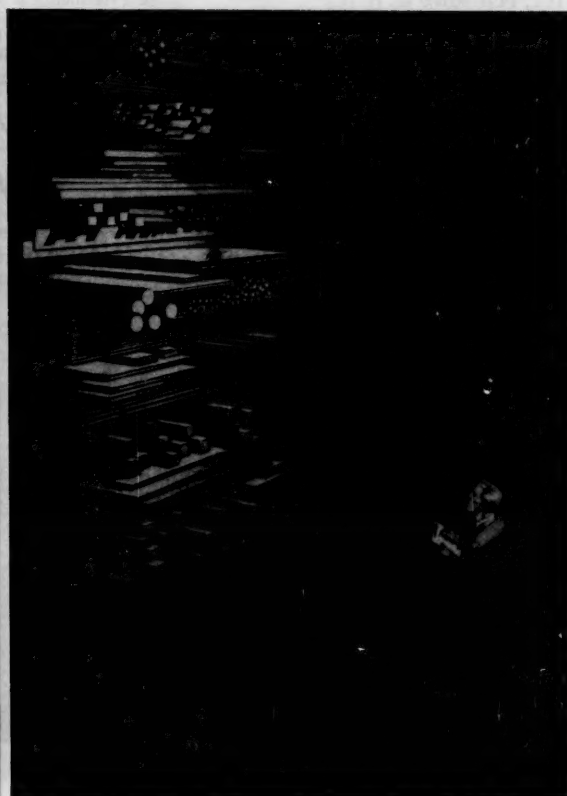
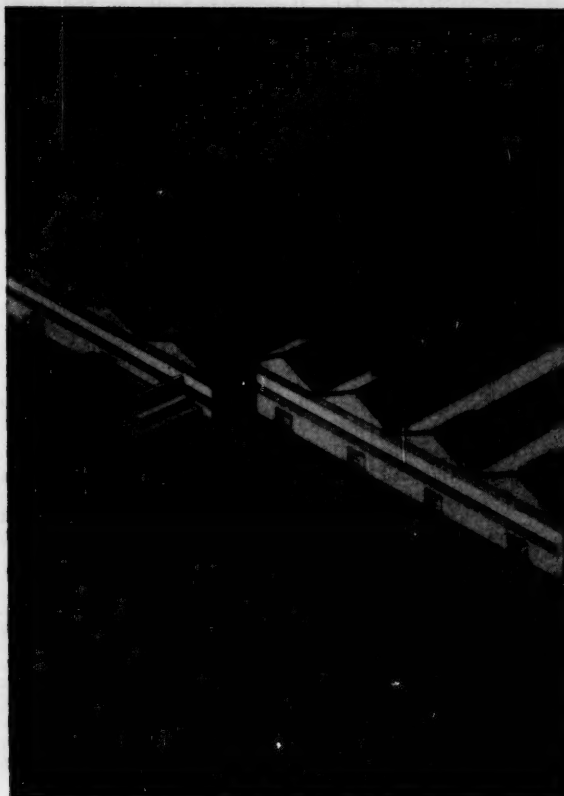
Gainesville—Pepsi-Cola Bottling Co., John W. Holeman, Pres., bottling plant. Oper. est. to begin 1959. 20,000 sq. ft. (B)

Hialeah—Lawnlite Co. of Miami, E. 10th Ave. and 4th St., Victor Reiter, Pres., aluminum furniture. Consolidation of oper. Oper. est. to begin Spring 1959. 400,000 sq. ft. \$2.5 million. (E)

Leesburg—Ballo Instrument Co., Fruitland Park, U. S. Hwy. 27-441, Joseph Ballo,



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## NEW PLANTS

Owner; veterinarian and fever thermometers, plant planned. Moving from Allentown, Penna. 10,000 sq. ft. (C)

Leesburg—Johnsen Boat Co., 309 Main St. John H. Johnsen, Off., fiber glass boats, plastic products. Oper. est. to begin Nov., 1958.

Live Oak—Fuco Chemical Co., Box 643, Frank L. Futch, Off.; insecticides, fungicides, fertilizer. In oper.

Madison—Precisionware, Inc., Harold M. Jacobs, Off., kitchen cabinets. Oper. began Oct., 1958. 40,000 sq. ft. (C)

Miami—Airwork Corp., 1740 NW 69th Ave., jet accessory overhaul. In oper.

Miami—Jetric Industries, Inc., elec-

tronics production. Moving from Philadelphia. 35,000 sq. ft.

Orange City—Wonder Mfg. Co., P. O. Box 248, Clay Finstad, Owner, heavy equip. In oper.

Orlando—Borden Co., 1600 W. Gore Ave., John S. Lipthrott, Mgr.; milk bottling. In oper. 50,000 sq. ft. \$1 million.

Palatka—Hatheway Patterson Corp., P. O. Box 453, cross arms, poles, brackets. In oper. Pensacola—Cary & Co., Henry N. Cary, Vice Pres., prefab houses.

St. Petersburg—B & B Mfg. Co., 1416 4th St., S., John Bonsey, Part; die sets.

Tampa—American Durox Corp., Karl Lagnefors, Pres., gas concrete. Const. est. to be-

gin early 1959. 55,000 sq. ft. \$1.1 million. (C)

Tampa—Jackson Products Co., Industrial Park, John T. Vaughan, Pres.; commercial dishwashers. In oper. \$125,000. (B)

West Palm Beach—Franklin Systems, Inc., electronics production and engineering. Moving from Pennsylvania.

### GEORGIA

Albany—Spartan Aircraft Co., Mobile Homes Div., Mock and Fleming Rds., J. Paul Getty, Pres.; mobile homes. Home office: Tulsa. Oper. est. to begin late 1958. 40,000 sq. ft. (D)

Atlanta—Atlanta Wire Works, Inc., College Park, Rd. and Union Ave., wire cloth. Associated with Johnson Wire Works Ltd. of Canada. Under const. (B)

Atlanta—Comfort-Craft Co., tubular and outdoor furniture assembly plant. Home office: Miami. In oper.

Atlanta—Gillman Paint Co., chemical operation. Oper. est. to begin late 1958.

Atlanta—Overmeyer Warehouse Co., Chattahoochee, Ind. area, warehouse. Under const. 120,000 sq. ft.

Blairsville—Perfection Door Co., Gainesville Rd., Roy Kelley, Pres.; doors, door and window units, ladders, tables. Moving from Jonesboro. (B)

Brunswick—Georgia Creosoting Plant, creosoting. Under const.

Canton—Bradshaw Mfg. Co., W. T. Bradshaw, Pres., poultry equip. Replacing plant destroyed by fire. Oper. est. to begin late 1958. (B)

Cartersville—Standard Textile Mills, woolen yarn plant. Under const. 15,000 sq. ft. (B)

Douglas—Douglas Fresh Egg Co., egg packing. Owned by Armour & Co. Oper. est. to begin late 1958. 11,000 sq. ft.

Gray—Hitchcock Corp., stone products. \$750,000.

Jefferson—Productive Acres Mfg. Co., Inc., H. S. Palmer, Pres., poultry feed handling units. Home office: Kest, Iowa. In oper. (B)

Lawrenceville—Dynamic Center Engineering Co., Inc., W. C. Rexroat, Pres., balancing instrument for auto and truck wheels. Relocation in city. Under const. 20,000 sq. ft.

Lyons—Colonial Poultry Farms, baby chicks. Home office: Pleasant Hill, Mo. In oper.

Macon—Rivers Candy Co., food processing. In oper.

Tignall—Jemeal Blouse Co., blouses. Under const. (C)

Warner Robins—Shelby Blueprint Co., blueprint reproduction. In oper. \$100,000. (B)

### HAWAII

No plants reported.

### IDAHO

Idaho Falls—Atomic Energy Commission, National Reactor Testing Sta., power plant and cooler planned. \$4 million.

Montpelier—Central Farmers Fertilizer Co., phosphate processing. Full oper. est. to begin 1959. \$ multi-million. (D)

### ILLINOIS

Bradford—Bradford Farm Supplies, Inc., John Howes, Co-owner, liquid fertilizer. In oper.

Chicago—Duo-Bed Corp., 850 N. Michigan, Elliott Frey, Pres.; hotel beds, office and show room in oper. 100,000 sq. ft. plant planned in Chicago area.

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Chicago—International Harvester Co., Wisconsin Works, rolling mill. Oper. est. to begin Spring, 1961. \$12 million.

Chicago—Time Chemicals Inc., 3900 S. Karlov Ave., industrial cleaning chemicals, plant and office. Relocation in city. 43,000 sq. ft.

Downers Grove—Rand McNally & Co., 2525 Curtiss Ave., globes. In oper. 15,000 sq. ft. \$300,000 plus.

South Chicago—U. S. Steel Corp., South Works, Charles J. Hunter, Supt., blooming and structural mill. Under const.

#### INDIANA

Angola—Moore Business Forms, Inc., Mill St., Robert F. Poole, Mgr., business forms. In oper. 40,000 sq. ft. (B)

Berne—American Automatic Co., electronics. Subs. of Automatic Electric Co., Chicago. Oper. began Oct., 1958. (B)

Berne—C. T. S. Electronics, Inc. Howard Christner, Mgr., electronic components. Under const.

Dunkirk—Armstrong Cork Co., Dunkirk Glass Plant, V. L. Ritter, Mgr., carton handling systems. Oper. est. to begin early 1959. 23,060 sq. ft.

Evansville—Lummus Co., Stockwell Rd., Al Ziolkowski, Mgr., maintenance, repair of company equip. Home office: New York. Oper. est. to begin late 1958.

Fowler—General Transformer Corp., Hwy. 18. Moving from Homewood, Ill. Oper. est. to begin Dec., 1958. (D)

Indianapolis—Devine Letter Co., 827 S. East. Relocating in city. In oper.

Indianapolis—Olin Mathieson Chemical Corp., corrugated containers. In oper. 127,000 sq. ft. (D)

Jeffersonville—Modern Container Corp., 333 E. Court Ave., William W. Reich, Pres.; containers, spiral-wound tubes. In oper. (B)

Newport—Sanford Pre-Cut Homes, William Sanford, Owner, milling oper. warehouse. In oper.

#### IOWA

Albia—Moloney Co., North A St., Paul S. Moloney, Pres.; aluminum combination doors mfg. plant est. to be in oper. early 1959; office bldg. est. to in oper. 1961.

Begley—Iowa Milling Co., plant planned. \$250,000.

Cedar Rapids—Wilson And Co., H. B. Housh, Mgr., mfg. and processing facilities. Oper. est. to begin early 1959. \$500,000.

Council Bluffs—Ready Mixed Concrete Co., 8th St. and 12th Ave., G. R. Bathe, Pres.; concrete. Home office: Omaha. Const. est. to begin early 1959. (B)

Decorah—Calmar Mfg. Co., wooden cabinets. In oper.

Denison—Corn Belt Packing Co., packaging and processing of beef products. Oper. est. to begin late 1958. (B)

Des Moines—Armstrong Rubber Mfg. Co., 2345 E. Market St., Frederick Machlin, Pres.; warehouse. Under const. 260,000 sq. ft. \$1.5 million.

Des Moines—Central Farms Hatchery, turkey hatchery, processing plant. Home office: Zeeland, Mich. (C)

Lake Mills—DeLuxe Products Corp., oil filters and cartridges. Branch of Walker Mfg. Co., Racine. In oper. (D)

Ottumwa—Ralston Purina Chow Co., feed plant. Home office: St. Louis. In oper.

Sperry—U. S. Gypsum Co., C. H. Shaver, Chmn. of Bd., gypsum. Oper. est. to begin early 1960.

West Des Moines—Steel Treating, Inc., 11th St. and Railroad Ave., Lloyd Mattson, Pres.; processing of stainless steel and alloys, tool and die hardening. In oper.

Wheatland—Stankoe Co., P. W. Stanke, Off., wagon boxes. Under const.

#### KANSAS

Coffeyville—Coffeyville Mfg. Co., 115 West 7th, James Ellis, Mgr.; children's wear, men's shirts. Oper. began Oct., 1958. (B)

Emporia—Crawford Mfg. Co., B. O. Cone, Pres., awnings, seat covers, hassocks, marine equip. Moving from Kansas City. Oper. est. to begin Aug., 1959. 100,000 sq. ft. (C)

Garden City—Hume-Fry Equipment Co., Dale Fry, Pres., grain dryers. Under const.

Horton—Rock And Roll Mfg. Co., baby stroller and jumper, assembly plant. Will bring mfg. oper. here later. Home office: Rockford, Ill. In oper. (C)

Junction City—E. T. Ellis Mfg. Co., women's slacks and jeans. Under const.

Kansas City—Olin Mathieson Chemical Corp., Fairfax Ind. Dist., 464 E. Donovan Rd., Douglas Herrod, Mgr.; corrugated containers. Relocation in city. Oper. est. to begin late 1958. 119,000 sq. ft. (C)

Newton—Model Furniture, Jack Turman, Mgr., mobile home furniture. In oper. (B)

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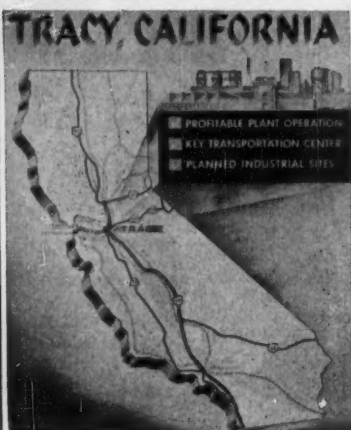
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## NEW PLANTS

### KENTUCKY

Calvert City—Cumberland Chemical Corp., C. J. McFarlin, Pres., vinyl chloride monomer, vinyl chloride polymer, new plasticizer. New company formed by Air Reduction Co., Inc. and Mastic Tile Corp. of America. Oper. est. to begin early 1960. \$10 million.

Cynthiana—Cardinal Seed Co., W. J. Walden, Off., buying, selling, custom cleaning of field seed. In oper.

Louisville—Co-Operative Seed And Farm Supply Service, Inc., Grade Lane, warehouse and seed handling plant. Oper. est. to begin April, 1959. 154,000 sq. ft. \$1.1 million.

Louisville—Ewing Von Allmen Dairy Co., Strawberry Lane, John H. Stark, Sr., Off.; dairy. Relocation in city. Oper. est. to begin March or April, 1959. \$1 to \$2 million.

Louisville—Fetter Printing Co., Locust Lane, Harold W. Braun, Pres.; new printing plant. Oper. est. to begin March, 1959. \$1.25 million. (D)

### LOUISIANA

Coushatta—Lancer Industries, Inc., Red Oak Rd., Benjamin Tessler, Pres.; swimming pools. Oper. est. to begin late 1958. 18,500 sq. ft. (B)

Morgan City—Hi-Pro Fish Co., Bayou Boeuf, processing of waste fish into high protein additive for poultry feed. In oper. \$500,000.

### MAINE

Guilford—Hardwood Products Co., Joseph W. Cartwright, Gen. Mgr., wooden-ware mfg. plant. Replacing plant destroyed by fire. Oper. est. to begin early 1959.

Gorham—Maine Metal Finishing Co., Inc., metals. Under const.

Lewiston — Paragon Glass Works, Inc., Lewiston Ind. Park, Angelo Paione, Pres.; Christmas tree ornaments, miniature light bulbs, glass electronic tubes, pistons. Home office: Elizabeth, N. J. Oper. est. to begin early 1959. 44,000 sq. ft. \$270,000. (D)

West Bethel—Roger Favreau Furniture Stock Plant, Rte. a, square and flat dimension stock. Oper. est. to begin Nov., 1958.

### MARYLAND

Baltimore—Wm. G. Wetherall, Inc., Cherry Hill-Westport Area, 1600 Cherry Hill Rd., Joseph A. Doyle, Pres.; steel warehousing. Oper. est. to begin late 1958. 50,000 sq. ft.

Franklin—Cumberland Cement And Supply Co., concrete and cement plant planned.

Timonium—Worcester Wire Novelty Co., Charles M. Rich, Pres., wire fabrication. Moving from Baltimore. Under const. 20,000 sq. ft.

### MASSACHUSETTS

Amesbury—American Capacitor Co., High St., James T. Barron, Pres.; electronics. Oper. began Oct., 1958. (B)

Auburn—Brown-Wales Co., Industrial Park, Guilbert Wales, Pres.; steel dist. Home office: Cambridge. Under const. on 4 acre site. 21,000 sq. ft.

Bedford — Raytheon Mfg. Co., Hanscom AFB, flight test facility. Oper. est. to begin early 1959. 70,000 sq. ft. \$1.7 million.

Burlington—R. C. A., Rte. 62, Kirkpatrick, Off.; electronics and controls missiles. In oper. 120,000 sq. ft.

Holyoke—Adell Chemical Co., detergents. Oper. began Oct., 1958. 22,000 sq. ft.

Lawrence—House of Bronzetti, Leo Lozzi, Pres., men's clothing. In oper. (C)

Lawrence—United Shoe Machinery Corp., shoemaking machinery. Oper. est. to begin early 1959. 73,000 sq. ft. (C)

Ludlow — Massachusetts Plastics Corp.,

West Ave., Louis Martinelli, Pres.; plastic containers. Oper. est. to begin Dec., 1958. 26,500 sq. ft.

Marlboro—Atkins & Merrill, Inc., Mass. Ind. Park, Bartlett St., Donald L. Atkins, Pres.; industrial scale models. Oper. est. to begin Dec., 1958. 20,000 sq. ft. \$300,000. (B)

Marlboro—United Bay State Chemical Co., Marlboro Ind. Park, Lincoln Redshaw, Vice Pres.; mfrs. and processes industrial chemicals. Oper. est. to begin Dec., 1958. 10,000 sq. ft. \$125,000. (B)

Maynard—Herman Hosmer Scott Co., Rte. 62, H. H. Scott, Pres.; electronic equip. In oper. 32,000 sq. ft.

Plainville—Hilsinger Corp., W. Bacon St., Arthur R. Hilsinger, Pres.; optical specialties. Home office: Attleboro. Under const. (C)

Waltham — Wirthmore Feeds, Inc., 343 Winter St., Robert McLeod, Pres.; grains and feeds. In oper. 59,000 sq. ft.

### MICHIGAN

Grand Rapids—Wolverine Tile Co., 3773 28th St., S. E., Peter Bowman, Pres.; architectural panels and fabricated steel, laminated and ceramic tile panels. Relocation in city. Under const. 10,300 sq. ft.

Livonia — Scans Associates, Inc., 12940 Farmington Rd., Vernon G. Converse III, Pres.; automotive, aircraft, missile supplies. In oper.

Ludington—Abrahamson-Nerheim Co., cement blocks. Oper. est. to begin Nov., 1958.

Paris Twp.—Bestwall Gypsum Co., 36th St. and E. Paris Rd., gypsum mining oper. planned. \$2 million. (D)

### MINNESOTA

Duluth—Federal Container Corp., Midway Mart, Joseph Goldman, Pres.; corrugated paper boxes, die cut specialties. Oper. began Oct., 1958. 20,000 sq. ft.

St. Paul—Torit Mfg. Co., W. 7th, William F. West, Pres.; dental laboratory supplies, industrial dust collectors. Oper. est. to begin mid-1959. \$500,000.

St. Paul—Pearson Candy Co., W. 7th and Rankin, G. E. Pearson, Vice Pres.; candy. Relocation in city. Oper. est. to begin May, 1959. 85,000 sq. ft. \$950,000. (D)

### MISSISSIPPI

Ocean Springs — Coca-Cola Co., bottling plant. Oper. est. to begin late 1958.

### MISSOURI

Chillicothe—Donaldson Co., Inc., industrial air cleaners, mufflers. Home office: St. Paul. 46,000 sq. ft. \$600,000.

Columbia—Central State Processors, Inc., Ernest C. Lehman, Vice Pres., orange juice processing. Oper. began Oct., 1958.

Hazelwood-Berkeley — National Tank & Boiler Co., Leonard Kosakowski, Pres., pipe fabrication. In oper. 34,000 sq. ft.

Kansas City—KW-Dart Truck Co., Northeast Ind. Dist., custom built vehicles, off-highway hauling trucks. Oper. est. to begin late 1958. 112,000 sq. ft. \$1 million.

Kansas City—Van de Kamp's Holland Dutch Bakeries, bakery goods. \$1 million. (D)

Monett—Mozark Poultry Processing Plant, Kyler St. and County Rd., broiler processing. Oper. est. to begin early 1959. (C)

West Plains—Southwest Truck Body Mfg. Co., Hwy. 63, Edward T. McDaniels, Owner, truck beds. Moving from Illinois. Oper. est. to begin early 1959. 36,000 sq. ft. (C)

Wood River—Anlin Co., Henry Blanchet, Vice Pres., has purchased 12 acres for sulphur processing plant. Hdqrs.: Houston. Oper. est. to begin July, 1959.



## NEW PLANTS

### MONTANA

Great Falls—Floyd Pappin & Son, 700 6th St. SW, ready-mixed plant and office planned.

### NEBRASKA

Lincoln—Notifier Co., 56th and Benton, Oliver T. Joy, Pres.; fire detection and security control systems. Oper. est. to begin early 1959. (B)

Omaha—Pepsi Cola Bottling Co. of Omaha, Inc., 4603 S. 72nd St., Robert M. Feinberg, Pres.; bottling plant. Under const. \$250,000. (B)

### NEVADA

No plants reported.

### NEW HAMPSHIRE

Keene—New Hampshire State Industrial Park Authority, Optical Ave., Anderson Nichols, Architect and Engineer; all purpose plant, built for speculation. Under const. \$310,000.

Manchester—American Velcro, Inc., zipperless zippers. In oper. (C)

### NEW JERSEY

Hillsborough—American Vittrified Products Co., Valley Rd., brown tile pipes and drains mfg. plant planned. \$1 million. (C)

Marlboro Twp.—Fritzsche Brothers, Marlboro-Vandenburg Rd., perfume and food essence, organic chemical research plant planned. \$1 million. (D)

Milltown—Chemirad Corp., Ryders Lane, confidential products. Owned by Cary Chemical Co. Under const.

Trenton—Skillman Hardware Mfg. Co., Fred R. Schollenberger, Vice Pres., foundry. Under const.

### NEW MEXICO

Alamogordo—United Industries, U. S. Hwy. 70 N., Dwight Smith, Part., ditch digging equip. Under const.

### NEW YORK

Brooklyn—A. Kinball Co., Rewe St., textiles. In oper.

Glens Falls—Union Bag-Camp Paper Co., Honeycomb Div., paper honeycomb. Oper. est. to begin early, 1959. 50,400 sq. ft. (C)

Greenburgh—Nuclear Development Corp. of America, Saw Mill River Rd., headquarters and research development center planned on 63 acre site. Under const. 40,000 sq. ft. (C)

Mt. Vernon—Bryant Pharmaceutical Corp., S. MacQuesten Pkwy., pharmaceuticals. Moving from Bronx. Oper. began Oct., 1958. 25,000 sq. ft. (B)

Rouses Point—Ayerst Laboratories, Inc., research facilities, warehouse, biological and pharmaceutical products. In oper. 37,500 sq. ft.

Warwick—Warwick Wear Mfg. Co., Spring St., Charles B. Rowe, Pres.; needlecraft. Oper. began Oct., 1958. (B)

Waterford—General Electric Co., Silicone Products Dept., development of silicone gums and rubber compounds, fluids, emulsions, resins. In oper.

### NORTH CAROLINA

Charlotte—Akers Motor Lines, Hwy. 29 and Little Rock Rd., John M. Akers, Pres.; trucking terminal. Consolidation of operation. Under const. on 40 acre site. 123,000 sq. ft. \$1 million. (D)

Durham—National Textile Research, Inc., 821 Bethesda Dr., William H. Payne, Pres.;

design and mfg. of prototype of products, test lab. Oper. began Oct., 1958.

Greensboro—Minute Lingerie, Inc., Branchwood Dr., Peter Levine, Pres.; women's and girls' petticoats. Consolidation of operation. Oper. est. to begin Spring, 1959. 22,000 sq. ft. (B)

High Point—Frames, Inc., 807 Ward St., Mose Samet, Pres.; furniture frames. 15,000 sq. ft. (B)

High Point—Russell Frame Works, Inc., 322 W. Russell St., furniture frames. In oper. 12,000 sq. ft. (B)

Oteen—Textile Research And Development Corp., George Fine, Pres., textile lab and test facilities. Oper. began Oct., 1958.

Thrifty—Thrifty Dye Works, Inc., dyeing and finishing textiles. (C)

West Jefferson—Northwest Potato Grading Assn., potato grading.

Wilmington—Southern Laces, Inc., Charles J. Mozur, Pres., lace for textile industry, mfg. plant and offices. Subs. of Mozur Laces, Inc. Oper. est. to begin early 1959. 60,000 sq. ft. \$400,000. (D)

Winston-Salem—R. J. Reynolds Tobacco Co., N. Cherry St., has optioned 17.74 acre site for \$20 million cigarette plant. (E)

### NORTH DAKOTA

Dickinson—Dic-Kota Clay Products Co., Henry Aberson, Pres., clay products, drain and face tile, sewer pipe, face brick. Oper. est. to begin Spring 1959. \$500,000.

Grand Forks—Red Dot Foods, Inc., Frederick J. Meyer, Pres., food. In oper.

### OHIO

Columbus—Burdett Oxygen Co., 450 Greenlawn Ave., William H. Loveman, Pres.; mfg.

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## NEW PLANTS

plant. Home office: Cleveland. In oper.

Crestline—Pittsburgh Plate Glass Co., Robinson F. Barker, Vice Pres.; glass fabricating. Oper. est. to begin 1959. 275,000 sq. ft. \$Multi-million. (D)

Dayton—Industrial Photocopy, Inc., 529 Hunter Ave., Richard Gainey, Vice Pres.; microfilm processing, commercial reproduction service. Home office: Ft. Wayne. Oper. est. to begin Nov., 1958. (C)

Mainville—Big Four Industries, Vernon Hildebrandt, Pres., high grade cutting tools, automatic tire changers, industrial tools. Under const. 40,000 sq. ft. \$500,000.

Miamisburg—Storm King Corp., J. A. Zissen, Pres., aluminum building materials, fishing boats, primary windows and thresholds. Moved from Louisville. Oper. began Oct., 1958. 65,000 sq. ft. (C)

Plainesville—Diamond Alkali Co., research center. Const. est. to begin May, 1959. \$2 to \$3 million.

Wadsworth—Wadsworth Millwork Corp., doors and windows. Consolidation of operation. Under const.

### OKLAHOMA

Ardmore—M & G Garment Manufacturers, Inc. In oper.

Frederick—Century Granite Co., Frederick Ind. Park, Leo M. Brown, Part.; quarrying and finishing of granite, building decorations. Moving from Snyder, Okla. Oper. est. to begin early 1959. 24,700 sq. ft. (B)

Lawton—Fairmont Foods Co., dairy products processing plant planned. 13,000 sq. ft. Miami—B. F. Goodrich Co., warehouse planned. 214,000 sq. ft.

Muskogee—Acme Engineering And Mfg. Corp., York St., Curt Buddrus, Pres.; ventilating and cooling equip., duct systems, high pressure fans. Relocation in city. 38,200 sq. ft.

Oklahoma City—Allied Materials Corp., Northwest Hwy. and Pennsylvania, office bldg. Under const. \$312,000.

Tulsa—Dewey Portland Cement Co., ce-

ment plant planned on 1,500 acre site. \$10 million.

### OREGON

Corvallis—Evans Products Co., E. S. Evans, Jr., Pres., battery separator plant, research labs. Oper. est. to begin 1959.

Hillsboro—Pacific Adhesives Co., glues for plywood industry. Under const. \$400,000.

Sheridan—Sheridan Hardboard, Inc., John Tyner, Pres., plywood. In oper.

Springfield—Nalley's, Inc., 475 N. 28th St., L. Evert Landon, Pres.; potato chips. Home office: Tacoma. Replacing facility destroyed by fire. Oper. est. to begin early 1959. 20,000 sq. ft. \$250,000. (B)

### PENNSYLVANIA

Berks County—The M-Jay Mfg. Co., cast iron boxes, foundry and machine shop. Home office: Brooklyn. Under const. 35,000 sq. ft. (B)

Butler—Air Reduction Sales Co., pipeline oxygen facility planned. Home office: New York.

Hawthorne—Rola Co., Rte. 28, loudspeakers. Subs. of Muter Corp., Chicago. Oper. est. to begin Feb., 1959. \$250,000.

Kane—Nylco Co., John Generale, Pres., redwood furniture. Full oper. est. to begin late 1958. (C)

Natrona—Talcon Galvanizing Co., Lawrence Nipp, Vice Pres., galvanizing of metal products. Oper. began Oct., 1958. (B)

Wattsburg—Ecclesiastical Furniture, Inc., Dan Rothhoff, Director, custom built church furniture. In oper. (B)

Wilkes-Barre—Sea Isle Sportswear Co., Leo Friedland, Pres., garment plant planned. (D)

### PUERTO RICO

Ponce—Union Carbide Caribe, A. D. Walker, Dept. Head. In oper.

### RHODE ISLAND

Warren—American Luggage Works, Inc., Sol Koffler, Pres. Moving from West Warwick. Oper. est. to begin Spring, 1959. (D)

### SOUTH CAROLINA

Charleston—Airkem Service of South Carolina, 10 King St., F. M. Pollock, Pres., smoke and odor elimination service. In oper.

Chester—Belle Chemical Co., chemicals. Moving from Penna. Oper. est. to begin mid-1959. 27,000 sq. ft. \$250,000. (B)

Columbia—Randy Apparel, Inc., 1928 Taylor St., Daniel Praete, Pres., pajamas, housecoats. In oper. (C)

Easley—Saco Lowell Shops, textile machinery. In oper. 26,000 sq. ft. \$250,000.

Greenville—Hayes Food Products Co., peas, popcorn, pecan and string bean processing. Under const.

### SOUTH DAKOTA

Lennox—Nutrena Mills, Inc., E. C. Fuller, Vice Pres., animal feeds. Subs. of Cargill, Inc. Oper. est. to begin early 1959.

### TENNESSEE

Dayton—Old Dominion Box Co., cardboard carton plant planned. Home office: Lynchburg. 20,000 sq. ft. (B)

Jackson—Wilbert Vault Co., U. S. Hwy. 45, Roy Sedgwick, Pres.; concrete and asphalt burial vaults. Home office: Memphis. Oper. est. to begin Spring 1959. (B)

Milan—R. H. Wright & Son, Inc., U. S. 45, prestressed concrete products. Home office: Ft. Lauderdale. Under const.

New Johnsonville—Air Products, Inc., liquid and gaseous oxygen and nitrogen. Home office: Allentown, Pa. Under const. \$2 million. (A)

Springfield—Goddard & Goddard Co., 800 Fifth Ave., W., small metal cutting tools. Home office: Detroit. Oper. est. to begin Nov., 1958. (B)

Union City—Transcold Corp., has acquired 5 acre site for plant to produce heavy duty refrigerating units for trucks. Home office: Los Angeles. (B)

### TEXAS

Abilene—Mead's Bakeries, Inc., E. P. Mead, Pres., refrigerated canned biscuits. Oper. began Oct., 1958. (B)

Arlington—Air Reduction Sales Co., high purity oxygen and nitrogen. In oper. \$400,000.

Dallas—Cleveland Container Co., Inc., Brook Hollow Ind. Dist., 8330 Directors Row, C. S. Allen, Gen. Mgr.; fiber and composite containers, tubing and cores. Home office: Cleveland. Oper. est. to begin late 1958. 27,500 sq. ft. (B)

Dallas—William S. Henson, Inc., 4901 Woodall, Lloyd C. Gilmore, Pres. Oper. est. to begin Nov., 1958. 25,000 sq. ft.

Dallas—Housewares Distributing Co. of Dallas, Inc., Brook Hollow Ind. Dist., 8805 Chancellor Row, Robert D. Boren, Pres.; warehouse and office, housewares, pet supplies, toys. Oper. began Oct., 1958. 36,000 sq. ft.

Dallas—Smithery Corp., Trinity Ind. Dist., 163 Howell, L. J. Oleson, Vice Pres.; shower doors, tub enclosures, patio doors. In oper.

Dallas—W. A. Tayloe Co., Brook Hollow Ind. Dist., 7045 Empire Freeway, W. A. Tayloe, Pres.; pallets, lift and warehouse trucks, Flexangle framing. In oper.

Dallas—Texas Instruments, Inc., N. Central Expwy., P. E. Haggerty, Pres.; consolidation of research activities. Oper. est. to begin early 1959. 78,500 sq. ft. \$3 million.

El Paso—Morton Foods, G. C. Morton, Pres., potato chips, sales, distribution, mfg. plant. Oper. est. to begin summer, 1959. 27,000 sq. ft. (B)

Ft. Worth—A. R. A. Mfg. Co., Great Southwest Ind. Dist. In oper. 50,000 sq. ft.



Signing of the Small Business Investment Act for 1958 by President Eisenhower brought congratulations from two congressmen who spearheaded its passage to Georgia banker Mills B. Lane (center), whose bank took the first concrete step in the country toward setting up a corporation to provide venture capital for small businesses. Rep. Wright Patman (left) and Senate Majority Leader Lyndon Johnson discuss with Mr. Lane the Citizens & Southern National Bank's authorization of \$325,000 for investment in a million dollar Georgia corporation to aid small businesses.



## NEW PLANTS

**Ft. Worth**—Burton Steel Co., shops, offices planned. 12,000 sq. ft.

**Ft. Worth**—Commercial Tooling Co., Great Southwest Ind. Dist. In oper. 35,000 sq. ft.

**Ft. Worth**—Delph-Nortex Hide Co., 2118 Jones. In oper. 40,000 sq. ft.

**Ft. Worth**—Ben E. Keith Co., Pecan and E. Ninth Sts., warehouse, cold storage, offices. In oper. 64,000 sq. ft.

**Ft. Worth**—Mid-States, Inc., Hwy. 183, metal finishing, offices, warehouse, tank area. In oper.

**Ft. Worth**—Polyolefin Compounding Corp., 1813 W. Bowie St., compounds, blends, colors, polyethylene plastic. 15,000 sq. ft.

**Ft. Worth**—Ray & Hamil Venetian Blind Co., 3855 S. Freeway, office, plant. In oper.

**Ft. Worth**—Sargent-Sowell Co., Great Southwest Ind. Dist. In oper. 22,500 sq. ft.

**Ft. Worth**—Southwest Match Co., 306 W. Ramsey, book matches. In oper. 14,000 sq. ft.

**Ft. Worth**—Tri-State Mfg. Co., 318 NE 33rd St., wooden store fixtures. In oper. 11,000 sq. ft.

**Ft. Worth**—Viking Reinforced Plastics, 2121 N. Main St., reinforced plastic boats. In oper. 10,800 sq. ft.

**Ft. Worth**—Western Co., Ridgmar Ind. Area, home office, plant and lab planned. \$2 million.

**Garland**—Geotechnical Corp., Shiloh and McCree Rds., William B. Heroy, Sr., Pres.; seismological and geophysical tools and equip. Oper. est. to begin late 1958. 40,000 sq. ft.

**Gladewater**—Gladeco, Inc., wood decking, shelving, paneling, other wood products. Moving from Arkansas. In oper.

**Henderson**—W. M. Products Co., S. A. Watson, Pres., aluminum windows. Oper. est. to begin Nov., 1958. \$250,000.

**Houston**—Industrial Equipment Co., San Jacinto Ind. Dist., E. Belt Dr., Edmond F. Meyer, Pres.; has acquired 10 acre site.

**Houston**—Metal Goods Corp., Harris T. Gregg, Vice Pres., industrial products division, warehouse, shop facility. Home office: St. Louis. Oper. est. to begin June, 1959.

**Houston**—Parker Bros. & Co., Inc., San Jacinto Ind. Dist., Tidwell Rd., ready-mixed concrete, sand and shell; has acquired 50 acre tract.

**Houston**—Reichhold Chemicals, Inc., Greens Bayou Waterway, Henry H. Reichhold, Pres.; synthetic resins. Oper. est. to begin mid-1959. \$1 million.

**Houston**—Sonnier Construction Co., San Jacinto Ind. Dist., E. Belt Dr., E. N. Sonnier, Pres.; has acquired 12 acre site.

**Houston**—Transmission Rebuilders, Holmes Rd., rebuilding of automatic transmissions. Owned by International Motor Rebuilding Co. \$500,000.

**Sweetwater**—Gifford-Hill Pipe Co., pipe. Under const. on 10 acre site.

**Waco**—Seven-Up Bottling Co. of Waco, W. Waco Ind. Dist., Emerson E. Holt, Owner; bottling plant. Relocation in city. Oper. est. to begin late 1958. 37,000 sq. ft. (B)

### UTAH

**Salt Lake City**—Utah Pie Co., 2323 SW Temple, Bryant O. Rigby, Pres.; pies, frozen pies. Relocation in city. In oper. \$250,000.

### VERMONT

**Brattleboro**—Arnoldware, Inc., plastic ware, containers. Oper. est. to begin Jan., 1959. (C)

**Hartford**—White River Structural Steel Co., Harold L. St. Peter, Mgr., building and bridge structures. Aff. of North Shore Steel Co., Lynn, Mass. Oper. began Oct., 1958.

### VIRGINIA

**Chesterfield County**—Capital City Iron Works, Grindell Creek Park, Frank R. Cervarich, Vice Pres.; steel, stainless steel, aluminum fabrication. Home office: Richmond. Const. began Oct., 1958. \$300,000. (C)

**Norfolk**—Southern Materials, Inc., Henry Clay Hofheimer, Chmn. of Bd., has acquired 20 acre site for plant to mfg. precast concrete.

**Norfolk**—C. E. Thurston & Sons, Inc., 850 Tidewater Dr., C. E. Thurston, Jr., Pres.; offices and warehouse. In oper. 78,698 sq. ft. \$400,000.

### WASHINGTON

**Tonasket**—Smith And Nelson, Inc., Monte Smith, Mgr., cold storage plant. Oper. began Oct., 1958.

### WEST VIRGINIA

**Elizabeth**—Ravens-Metals Co., State Rte. 14, Lloyd Cook, Pres.; aluminum fabricating plant. Under const. (B)

**Huntington**—Tru-Line, Inc., 35 W. Fourth Ave., C. H. Conard, Off.; realignment of front ends of heavy highway equip., balancing of tires, related work. Oper. began Oct., 1958.

### WISCONSIN

**Beaver Dam**—Metalfab, Inc., Melvin N. Bondehagen, Off.; fabricated metal parts, welded products. \$100,000. (D)

**Milwaukee**—A. O. Smith Corp., L. B. Smith, Off.; metal fabrication. \$1.5 million. (E)

**Neenah**—Kimberly-Clark Corp., John R. Kimberly, Off.; paper products. 250,000 sq. ft. (E)

### WYOMING

No plants reported.

### CANADA

#### ALBERTA

No plants reported.

#### BRITISH COLUMBIA

**Burnaby**—Kelly Douglas and Co. Ltd., coffee, tea, peanut butter. Oper. est. to begin Summer 1959. 147,000 sq. ft. \$2 million.

**Castlegar**—Celgar Ltd., Kraft pulp plant. Subs. of Canadian Chemical & Cellulose Co. Ltd. Oper. est. to begin March, 1961. \$30 million. (D)

**New Westminster**—Western Copper Mills Ltd., copper and brass. Oper. est. to begin early 1959. \$8.5 million. (D)

**Vancouver**—Edoco-Healey Technical Prod. Ltd., fiber expansion joint material. In oper.

**Vancouver**—Nalley Ltd., potato chips, mayonnaise. \$1 million. In oper.

**Vancouver**—Orenda Industrial Ltd., plant planned. Subs. of A. V. Roe Canada Ltd.

**Vancouver**—Western Gypsum Products Ltd., gypsum board and plaster. Oper. est. to begin late 1959. \$2 million.

#### MANITOBA

**St. James**—Baker & Sons Ltd., 632 McDermot Ave., P. Baker, Pres.; printed matter. Oper. est. to begin Jan., 1959. (B)

**St. James**—Standard Brands Ltd., 75 Main St., Geo. E. McComb, Mgr.; wholesale food, office and warehouse.

**Winnipeg**—W. H. Escott Co. Ltd., 129 McDermot Ave., J. J. Korman, Mgr.; wholesale groceries and hardware. Oper. est. to begin Jan., 1959.

**Winnipeg**—MacLeod's Ltd., 1301 Ellice Ave., W. R. Finley, Gen. Mgr., dist. of hardware farm machinery, electrical supplies. Oper. est. to begin March, 1959.



*Eyeing a  
new plant site?*

The Texas Power & Light Company invites expanding industry, large or small, to make use of the services of its staff of specialists—skilled and experienced in serving officers and executives of industrial corporations. Without obligation, your particular location problems will be carefully and thoroughly analyzed by those having broad knowledge of industry and facts pertaining to manpower, materials, resources, finance and other important factors in Texas.

*Write, wire or call J. D. Eppright, Director, Industrial Development Division, Texas Power & Light Company, Dallas, Texas. Inquiries held in strict confidence.*

Booklet detailing plant location services sent on request.





## NEW PLANTS

Winnipeg—Palm Dairies Ltd., 1020 Logan Ave., P. De La Giroday, Mgr.; ice cream, butter, dairy products. Full oper. est. to begin 1959. \$1 million. (B)

### NEW BRUNSWICK

No plants reported.

### NEWFOUNDLAND

No plants reported.

### NOVA SCOTIA

No plants reported.

### ONTARIO

Ajax—Hein-Werner of Canada Ltd., Fairall St., Frank Hackl, Mgr.; hydraulic jacks and motor parts. Subs. of Hein-Warner Corp., Waukesha, Wisc. In oper. 12,000 sq. ft.



## Now Showing!

Close to 100 different government agencies, business organizations, and private firms are now presenting **GOLD MINE ON MAIN STREET** to audiences throughout the country. First documentary motion picture made to explain the stake each community has in industrial growth, **GOLD MINE** is a 16mm sound film in color. Running nearly 30 minutes, this new film offers an outstanding opportunity for public-relations conscious groups to win new understanding and prestige. Prints which are available at nominal cost may be distributed and presented via television, business meetings, and civic groups. Details on request.

**Industrial Sound Films, Inc.**

Conway Building, N. Atlanta 19, Ga.

Aurora—Sterling Drug Mfg. Ltd., Hwy. 11, pharmaceutical and proprietary medicines, hdqrs. and mfg. plant. \$2 million.

Rexdale—Tapecoat Co. of Canada Ltd., 25 Haas Rd., J. Russell Wall, Pres.; protective coal tar coatings in tape form. Subs. of Tapecoat Co., Evanston, Ill. In oper.

Sarnia—DuPont of Canada, St. Clair River Works, has purchased 500 acre site for \$Multi-million linear polyethylene resin mfg. plant. (D)

Toronto—Fonstone Products (Canada) Ltd., 62 Osler St., building and concrete maintenance products. 13,000 sq. ft. In oper.

Toronto—Hallmark Accessories (Canada) Ltd., 121 Sherbourne St., T. Kikuta, Mgr.; clocks, lamps, other specialty gifts. Subs. of Hallmark Accessories Co., Brooklyn. In oper.

Toronto—Tonolli Co. of Canada Ltd., Dixie Rd., Giovanni Bohman, Pres.; secondary non-ferrous metal refinery. Oper. est. to begin Fall 1959. 40,000 sq. ft. \$1 million.

Whitby—DuPont of Canada, polyethylene film mfg. plant planned.

### PRINCE EDWARD ISLE

No plants reported.

### SASKATCHEWAN

No plants reported.

## OTHER COUNTRIES

### AFRICA

French Guinea—Olin Mathieson Chemical Corp., alumina, facilities planned. \$Multi-million.

### ARGENTINA

Buenos Aires—Ford Motor Co., truck and trailer mfg. plant planned.

### AUSTRALIA

Ballarat—Australian Timken Proprietary Ltd., Elmer Schweitzer, Dir., bearings, part numbers. Subs. of Timken Roller Bearing Co., Canton. Full oper. est. to begin late 1958. 35,000 sq. ft. (C)

Melbourne—B. F. Goodrich Co., new plant planned.

Newcastle—Hunter River Chemical Co., carbon bisulfide. Subs. of Australian Cream Tartar Co. In oper. \$1.5 million.

Sydney—Abbott Laboratories, fine-chemicals, pharmaceuticals plant planned.

Sydney—Eli Lilly (Australia) Pty. Ltd., tablets and pulvules. Subs. of Eli Lilly & Co. Oper. est. to begin 1959. \$400,000.

Sydney—Chas. Pfizer Co. has purchased 10 acres for plant to package and compound antibiotics.

Villawood—Warner-Lambert, pharmaceuticals, cosmetics plant planned. 95,000 sq. ft. \$1.2 million.

### BELGIUM

Malines—DuPont de Nemours (Belgium) S. A., Stuart L. Finch, Mgr.; paints, lacquers, enamels, varnishes, thinners. Subs. of DuPont, Wilmington, Dela. Oper. est. to begin Fall 1959. (C)

### BRAZIL

Campinas—Bendix do Brasil Equipamentos Para Autoveiculos S. A., auto and truck brakes. Subs. of Bendix Aviation Co. and Westinghouse Air Brake Co. 165,000 sq. ft.

Campinas—B. F. Goodrich Co., tires, tubes, plastics, industrial rubber products, plant planned.

Cubato—Koppers Co. And Chemische Werke Heuls (of Germany), low pressure polyethylene plant. Oper. est. to begin 1960.

### CHINA

Hong Kong—Reichhold Chemicals (Hong Kong) Ltd., industrial synthetic resins. Aff. of Reichhold Chemicals, Inc. Oper. est. to begin Spring 1959.

### COLUMBIA

Barranquilla—Russell Mfg. Co., brake lining factory. In oper.

### ENGLAND

Redhill, Surrey—Foxboro-Yoxall, L. S. Yoxhall, Mng. Dir. In oper. (D)

### FRANCE

Marseilles—Shell-Saint Gobain, Texas Butadiene Chemical, G. L. Cabot; joint 50,000 tons/yr. butadiene-styrene rubber plant. Oper. est. to begin early 1961.

### HOLLAND

Leiden—Royal McBee Nederland, typewriters. Subs. of Royal McBee Corp. Oper. est. to begin early 1960. (D)

### IRAN

Teheran—Allen & Hambury Ltd., pharmaceuticals plant planned. \$2.8 million.

### ITALY

Scanzorosciate—Ftalital S. p. A., maleic anhydride plant planned.

Turin—Naugatuck-Rumianca, S. p. A., facility planned to produce and sell chemicals. Co-owned by U. S. Rubber Co. and Rumianca Co. of Turin, Italy.

### JAPAN

Kawasaki—Asahi Dow Ltd., styrene monomer. Owned by Dow Chemical International Ltd. and Asahi Chemical Industry Co. Ltd. Under const.

### MEXICO

Monterrey—Electrodos Nacionales, Lee Hollingsworth, Pres., carbon electrodes and anodes. Oper. est. to begin late 1958. \$8 million.

### MOROCCO

Casablanca—Procter et Gamble—Maroc, detergents. Subs. of Procter & Gamble. In oper.

### PORTUGAL

Alcohet—Firestone Portuguesa, Harvey S. Firestone, Jr., Chmn. of Bd., truck and passenger car tires. Subs. of Firestone Tire & Rubber Co., Akron. Oper. est. to begin late 1959.

### VENEZUELA

Caracas—Dow Chemical International Ltd. Subs. of Dow Chemical Co. In oper.

## MACHINES

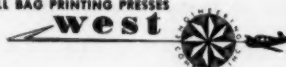
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## Vacant Building Inventory Planned

A special service to aid the buyers and sellers of industrial properties will be presented in the February issue of INDUSTRIAL DEVELOPMENT and MANUFACTURERS RECORD.

This project is in recognition of the fact that there is a definite need for a convenient guide to industrial buildings throughout the country. With industry swinging into another round of heavy investment in new facilities, this is an opportune time to bring together those who want buildings and those who have them to sell or lease.

To meet this need ID will publish a national inventory of vacant industrial buildings in the United States, Canada, and Territories.

The vacant building inventory will be issued as an integral part of the monthly magazine, going to all subscribers. The guaranteed circulation is 16,000 readers, and this audience is made up largely of company presidents in the East and Midwest.

It is planned that listings will be carried free of all vacant buildings containing 100,000 square feet or more of space. Such listings will be presented by state, in alphabetical order, and within each state listings will be organized by city in which the building is located. Each listing should specify floor area, general construction, and should indicate the person to be contacted for further negotiation.

Because it is directly in the interest of all concerned to compile the most complete list possible, it is urged that Chambers of Commerce and other development groups notify building owners and brokers of this project immediately.

The vacant building inventory will carry advertising, both display and classified. It is expected that development groups will be interested in display space either to advertise a list of small buildings or to feature a single large unit. While free listings are limited to buildings of 100,000 square feet or over, there is no size limit on units which may be advertised.

It also is expected that a great many small buildings will be offered via classified advertisements. These will be inserted directly into the inventory section under the proper city and state.

For further information write Research Department, Conway Publications, Inc., North Atlanta 19, Georgia.

## THE MANUFACTURERS RECORD: A SAGA OF SEVENTY-FIVE YEARS

Seventy-five years ago next month, the nation's oldest general business magazine was born. Called MANUFACTURERS RECORD, it was an outgrowth of the *Baltimore Journal of Commerce*, then 30 years old. MANUFACTURERS RECORD has outlived probably as many publications as there are in existence today, and its history is as exciting a saga as you'll ever hope to read.



MANUFACTURERS RECORD, almost from its inception, has been heralded as a top source of business news. Its famous editorial campaigns resulted in the establishment of a National Bureau of Standards, U. S. Department of Commerce, flood control measures; and many other vital issues in American history were influenced by stirring RECORD editorials.

From the start, important people read the RECORD. As now, decision-making executives made up the RECORD'S audience in the 1880's. Through powerful leadership and an unflinching editorial stand, MANUFACTURERS RECORD has weathered wars, depressions and natural disasters to see the better days of the 1950's. During these years, some of America's most famous names have been on the RECORD'S subscription lists.



The history of MANUFACTURERS RECORD is the history of the United States since the 1880's. The RECORD'S pages tell the phenomenal growth story of American industry with a day-by-day approach. Automation and electronics are predicted by the RECORD, urged by the RECORD, finally reported on by the RECORD. Carriages turn into automobiles, "flying machines" into jets, and the RECORD faithfully reports.

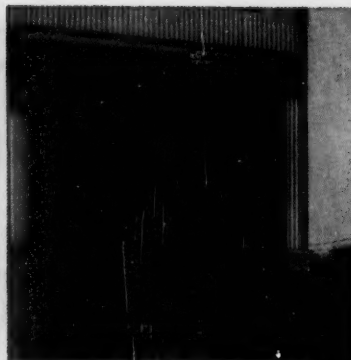
And, next month in a special Diamond Anniversary edition of MANUFACTURERS RECORD, you'll be reading the dramatic story of this publication's history. Yes, next month, in a celebration edition of today's "space age" MANUFACTURERS RECORD, you'll be turning back the clock to look behind the scenes at the MANUFACTURERS RECORD of 75 years ago.







**1** Where hoists or conveyors travel close to the doorway, or where side-walls or ceiling areas are not usable for door storage.



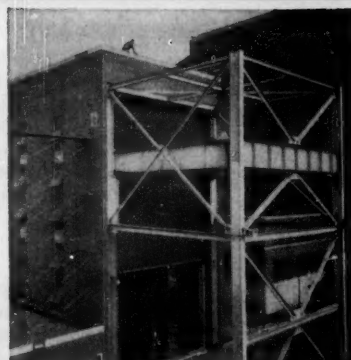
**2** Where ceiling-high openings, or economies of low-headroom construction, suggest doors mounted on exterior walls.



**3** Where surrounding window or glass areas would be blocked off or made unsightly by opened doors, tracks, or rails.



**4** Where door areas must remain clear from jamb to jamb and floor to ceiling, for unimpeded materials-handling.



**5** Where openings are too wide, too high, or too big to make anything but a Kinnear Steel Rolling Door practical.



**6** Where openings are at an angle, or horizontal, or where no sidewall or headroom areas permit storage of opened doors.

# Seven Conditions That Call For Kinnear Steel Rolling Doors



**7** And wherever you want to be sure of longer-lasting, low-maintenance, space-saving door efficiency that costs less in the long run.

Only a few advantages of the all-steel interlocking-slat door with coiling upward action, *originated by Kinnear*, are shown above. But the features that make Kinnear Rolling Doors best for these conditions make them best for any installation!

These famous doors, whether opened, closed, or in operation, leave all surrounding space usable at all times. When closed, they protect openings with a continuous curtain of steel. And instead of sacrificing door efficiency to do it, *they increase efficiency tremendously!*

You can have these Kinnear advantages with either manual or motor operation. Motorized doors can be equipped with push-button switches at any number of points.

On top of all this, every Kinnear Door is REGISTERED — an advantage proved through more than 50 years. Complete details are permanently on file at the Kinnear Plant. Accidentally damaged parts of any Kinnear Door can be replaced at any time — *even after 30, 40, or 50 years of daily service*. Your Kinnear Doors are never "orphans". Get rid of *your* door problems. Write for full details on Kinnear Rolling Doors.

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# MANUFACTURERS RECORD

(IN REVIEW)



NOVEMBER 1884

(AS ABSTRACTED MORE THAN 70 YEARS LATER)

BALTIMORE, MD.

## EFFECT OF THE RAILROAD PEACE

After a long and bitter fight, which has caused losses almost beyond calculation to all business interests, the trunk line roads have made peace, and agreed to advance rates to a paying basis. So long as the railroads were at war, and thus necessarily being operated at a heavy loss, or at least with great reduction from their receipts when at peace, requiring the utmost economy in their management, there was really little foundation for a general revival of business. The railroad interests of the country are of such enormous extent, and upon them depend so many of the varied industries of the country that unprofitable railroad business means general dullness in trade and manufactures.

For several years the railroads have added to the rolling stock as little as possible, and at the same time made comparatively few extensions or improvements to their tracks. Now that peace has been declared and rates advanced to more profitable figures, we may soon look for extensive improvements on the principal railroads of the country. New cars and engines will be wanted and new rails needed to replace those worn out, as well as for extensions and for short branch lines that will be built to develop increased business. When this takes place there will soon come a general revival in the iron and kindred interests, and the signs of better times, already increasing, will become still more pronounced.

## A WORD ABOUT FLORIDA

Jacksonville, Florida, is still enjoying a building boom, and for that matter the whole of Florida seems to be doing the same. Towns are springing up in a manner that would do credit to the Western mining regions. They are, however, based on good solid foundations—a glorious climate and a productive soil.

Florida, unfortunately, however, is cursed with a few "paper" towns—towns that exist nowhere save in the fertile brain of some dishonest speculator. Some Chicago people lately purchased lots in one of these towns, only to find, upon reaching the locality, that their land was two feet under water. In this case they got more than they bargained for—they paid for land only, but got a few million gallons more or less of water thrown in.

Well located Florida land is a fine investment, and fortunes are being rapidly made in real estate there. Florida has some good honest land agents, thoroughly reliable in all that they say, and it also has many new towns that are sure to grow and become the center of a large and prosperous population. On the other hand there are doubtless a few real estate agents who would not make model Sunday school teachers, and a few towns—so called—that are not quite up to the point of being an earthly paradise.

Florida is getting to be the place for big hotels. Hotels are pretty much everywhere, and of all sizes and all styles, the largest and costliest now under construction being a \$2,000,000 house that some of the Standard Oil people are putting up at St. Augustine. This is designed to surpass in magnificence and general style everything else in the hotel line in the state. St. Augustine is said to have \$3,000,000 already invested in hotels, and this new one will make the amount \$2,000,000 more. Their aggregate capacity is put at 6,000 people.

## LITERARY NOTICES

Miss Mamie Dickens, the eldest daughter of Charles Dickens, has written a short biography of her father which Cassell & Company will issue as their next volume in their "The World's Workers" series. Miss Dickens has condensed the story of her father's public life and has taken pains to show him as he was at home with his family, and at his work, and she has given what will perhaps be regarded as the pleasantest pen picture of the great novelist.

## NEW SLEEPING CARS

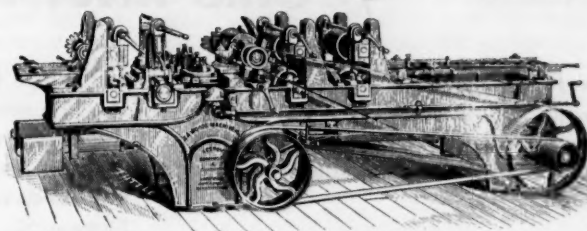
The Shenandoah Valley Railroad has re-

cently put on new sleeping cars between Hagerstown and Roanoke, for which the charge for a night, the time of the run between the terminal points of this road above named, is only one dollar, just half the Pullman charge for the same service. These sleeping cars have been constructed by the railroad company itself for its own use. The editors of the Virginian pronounces them not only equally as comfortable and pleasant as the Pullman sleepers, but in several particulars much more agreeable, especially in this, that there are no upper berths, thus making every berth at the half single rate as airy and pleasant as a whole section in a Pullman sleeper, for which the charge is never less than four dollars.

## TRADE NOTICES

The Westinghouse Machine Company are still further enlarging and improving their works. They are building a furnace to be fired with natural gas, and are erecting a steam hammer for the die forging of their connecting rods from mild steel. They are also building a brass foundry for the production of their own castings. Natural gas has been introduced throughout the works.

# Wood-Working Machinery



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Railroad Shops,  
Planing Mills,  
Car Builders,  
Cabinet, Carriage,  
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Blind Makers.

We received eight First-Class GOLD MEDALS at the World's Exposition, at New Orleans, La., on our Machinery, awarded by an Experienced and Practical Committee.

GOLD MEDAL for best Fast-Feed Flooring Machine.

GOLD MEDAL for best Molding Machine.

GOLD MEDAL for best Endless Bed Double Surfacer.

GOLD MEDAL for best Jointing Machine.

GOLD MEDAL for best Circular Saw Machine.

GOLD MEDAL for best Planing Machine for Matching two Boards at a Time.

GOLD MEDAL for best Panel Planer.

GOLD MEDAL for best Shop Surfacer. Illustrated Catalogues on Application.

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## AT SILOAM, KENTUCKY

## 430-acre Ohio River Industrial Site

The Ohio River Valley is one of the fastest growing industrial areas of our country. For 150 miles — between Huntington, W. Va., and Cincinnati — Chesapeake and Ohio Railway parallels the busy Ohio River.

Already, giant steel mills, new and expanding chemical plants and other varied manufacturers call this valley their home. But many level, flood-free river front industrial sites are still available, some owned by Chessie's railroad.

Typical is this 430-acre site at Siloam, Kentucky.

**LOCATION:** 4 miles east of Portsmouth, Ohio, at the junction of C & O main lines — West to Cincinnati and Chicago, East to West Virginia and Virginia, North to Ohio, Michigan and Canada.

**TRANSPORTATION:** Chesapeake and Ohio; U.S. highway No. 23; Ohio River. **UTILITIES:** Kentucky Power Co., Columbia Gas of Kentucky, Inc. Water from South Shore Water Works with surplus capacity of 300,000 gallons. **TOPOGRAPHY:** Just enough slope for proper drainage. **LABOR:** Estimated surplus of 2,100 men and 6,500 women in the area.

Complete Industrial Surveys of this and other Ohio River sites are available to interested companies. Inquiries are handled in complete confidence and without obligation. Address: Wayne C. Fletcher, Director of Industrial Development, Chesapeake and Ohio Railway, Huntington, W. Va., Tel: Jackson 3-8573



## Chesapeake and Ohio Railway

SERVING: Virginia • West Virginia • Kentucky • Ohio  
Indiana • Michigan • Southern Ontario



# WEATHER PATTERNS IN THE SOUTHEAST

By C. K. Vestal

UNLIKE any other animal, the human possesses the ability to live and work in any of the world's climates. One of the reasons for this is that the human body has a very good natural heating and cooling system which gives it the capacity to adapt readily to wide ranges of climate or to rapid weather changes. More important, however, are the various artificial means man uses, such as clothing, shelter, and air conditioning, to extend his comfort range or his ability to live under the most rigorous weather conditions.

However, there is no concern here with man's ability to survive in extreme climates. Instead, the discussion surrounds the important fact that he can work efficiently only within his much narrower comfort zone. This applies either to indoor or outdoor work, although the comfort ranges will differ for each type of activity. In these days of rising labor and material costs, this fact has become increasingly important to plant managers, executives, and others concerned with efficient production. Also, those state and municipal agencies whose job it is to attract new industry to their areas have come to recognize climate as a salable commodity. In a recent issue of *INDUSTRIAL DEVELOPMENT*, about one out of every seven of the larger advertisements concerning plant sites made some mention of the local climate as an inducement for choosing an area in which to locate. Added to this is the belief of many that continued profits and maintenance of our high standard of living depend largely on increased output per man hour of work. It would appear, therefore, that no one can afford to overlook any factor which can operate to either raise or lower efficiency. Climate is one of these factors.

Climate has its effects on a great

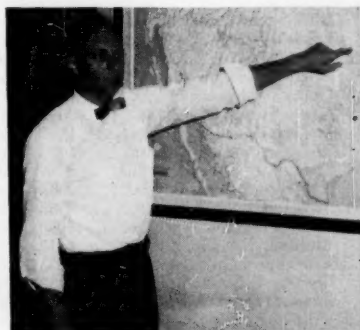
many mechanical operations as well. Frequently, transportation or storage of materials, electric power generation and transmission, and functioning of much of the equipment of modern industrial operations are governed by climatic considerations. As a matter of fact, it is difficult to find an operation that is not affected by climate or weather to some degree, even though the effect is not necessarily of paramount importance.

In its essentials, then, the problem discussed here becomes one of evaluating the importance of climate in a particular operation. It may turn out to be a highly important factor that cannot be ignored, and preventive or compensatory measures must be taken once this fact is realized. On the other hand, one may discover that the climate factor is entirely secondary to other much more important items and, consequently, may be rejected as an influence on further considerations. However, in either case, the process has been one of examining the climate factor and

determining its proper rank in the entire operational process, rather than the less wise procedure of ignoring its influence or deciding arbitrarily that climate or weather risks are not important.

In choosing the plant site, therefore, one should have some knowledge of the climate of the region and be able to evaluate the effect that various weather extremes will have on the plant's construction, operation, and maintenance. Of course, this appraisal should be carried on concurrently with that of the labor market and raw material supply; transportation and distance to markets for finished products; availability of land for purchase or lease; the state, county, and municipal tax structure; availability of power and fuel; regulations covering gas or liquid waste discharges; and the many other considerations that always enter into such decisions.

After a brief description of the climate of the southeastern states, the discussion following will cover many



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## WEATHER FACTORS

effects of the weather phenomena that are found in this part of the country. The discussion, of course, is designed to be of help in selecting and planning for a plant site in these regions.

### Climate of the Southeastern States

Actually, there are many different climates within this area. There are, however, enough general similarities to make it easier, for the purpose at hand, to discuss the climate of this region as a whole rather than get into an involved story on the many climatic variations one will find here if he searches long enough. In line with this, there are several major geographical features which determine the climate of this region (and, indeed, of any region). Once the roles of these features are understood, it becomes somewhat easier to judge how various weather factors may interplay to produce the sum total of the weather, or what is more usually called the climate. These geographical features can be listed quickly:

1. The huge land mass to the west and northward.
2. The Appalachian mountain range.
3. The Atlantic Ocean and the Gulf of Mexico.
4. The latitude or distance from the equator.

In the winter, the great land area to the northwest, extending far into Can-

ada, is covered with snow. This area becomes a source region for the very cold air which frequently slides down into the U. S. southeastward through the Midwest and causes our cold waves. Usually these cold waves have moderated considerably by the time they reach our area, and the southeastern cities do not get the very low temperatures of such cities as Chicago, Minneapolis, and Kansas City, nor do the cold spells last as long. Also, frequently the Appalachian mountains, which run nearly north and south, tend to block some of the cold air to the west and partially shield the coastal states from the worst of the cold. Even so, occasionally an especially severe cold outbreak will penetrate into the southeast to the Gulf of Mexico and the Atlantic Ocean. These are few, however, and do not persist for long.

At all seasons of the year, there is a fairly constant flow of warm, moist air from the Gulf of Mexico and from the adjacent part of the Atlantic into the southeastern states. The interaction of the warm air with the winter cold outbreaks from the northwest produces frequent and wide-spread precipitation which falls most often in the form of rain. Of course, in the more northern states of this region, there are occasional snowfalls, but, except in the mountains, the snow does not remain on the ground long; in the southernmost states snow is a rarity and almost always melts as it falls. In these sections one

Average Number of Days Each Year

Southeastern City									
Weather Averages									
	Normal Heating Degree Days	Average Relative Humidity Near Noon	High Temperature Over 90°	Low Temperature Under 32°	Low Temperature Under 0°	Snow or Sleet	Thunderstorms	Measurable Precipitation	Precipitation 1 Inch or More
Birmingham, Alabama .....	2780	54%	60	38	†	†	65	118	15
Little Rock, Arkansas .....	2982	57%	75	46	†	1	59	103	16
Miami, Florida .....	173	60%	7	†	0	0	71	130	16
Atlanta, Georgia .....	2826	56%	34	38	†	†	51	122	12
Louisville, Kentucky .....	4439	57%	34	76	1	4	46	122	10
New Orleans, Louisiana .....	1175	62%	57	4	0	†	73	120	15
Jackson, Mississippi .....	2202	54%	99	36	†	†	62	107	11
Charlotte, North Carolina .....	3205	54%	40	46	†	2	46	120	9
Charleston, South Carolina .....	1769	56%	27	9	0	†	59	110	12
Nashville, Tennessee .....	3513	56%	42	62	†	3	52	120	12
Richmond, Virginia .....	3955	53%	45	83	1	2	37	115	9
New York, New York .....	5050	59%	7	92	†	8	31	124	12
Chicago, Illinois .....	6310	58%	28	123	7	10	36	119	8
Minneapolis, Minnesota .....	7853	60%	17	155	29	12	37	113	5
Denver, Colorado .....	6132	38%	34	153	7	17	43	86	2
Kansas City, Missouri .....	4888	55%	55	101	2	5	49	101	8

†—Less than one day every other year.



## WEATHER FACTORS

may live years without seeing snow more than once or twice.

The winter climate of the southeast may be summed up, therefore, as being warmer than that to the north and west and having more precipitation and higher humidity than the western winters. The usual humidities are such as to cause the occasional cold spells to be more uncomfortable than would be the case if the air were drier. By any definition, however, the southeastern winters are more mild than elsewhere in the United States, with the possible exception of those in southern Texas, southern Arizona, and along the Pacific Coast; these will be discussed in another article in this series.

The southeastern summers range from warm and humid to hot and humid. The main reason for this is the continued inflow of warm, moist air from over the Gulf of Mexico. Even so, frequent thundershowers, which are the main source of precipitation during the summer, afford relief. The very high summer temperatures of the Great Plains, from the border of Mexico to the Canadian border, are rarely if ever experienced in the southeast. Here the higher temperatures occur inland although they do not go above 95° very often; along the Atlantic and Gulf coast, the daily maximum temperatures are somewhat lower, but the humidity is higher.

From the above remarks, one can begin to understand how the four major geographical features, mentioned earlier, operate to control the southeastern climate. In the same order they were listed previously:

1. From the much colder land expanse to the far northwest come the cold air outbreaks in the winter that penetrate the southeastern states. However, the cold waves are normally less frequent, less severe, and do not persist as long in the southeast as they do in the northern, central, and Rocky Mountain states. Between cold spells, the weather is comparatively mild and even occasionally balmy; naturally, the mild or balmy periods are more frequent and more pronounced in Florida and in the nearby states along the Gulf and the Atlantic coasts.
2. The Appalachian mountains frequently offer some protection in winter to the states immediately to the east. Along the mountain tops, snow is more frequent in the winter and stays on the ground longer

than elsewhere in the region. Here, too, the humidity is lower and the temperatures are lower in summer and in winter. Greater, also, is the daily temperature range (difference between the daily high and the nighttime low temperatures) in the mountains.

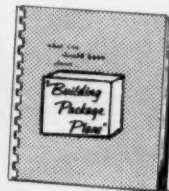
3. The Gulf of Mexico and the adjacent portion of the Atlantic are the major sources of precipitation and high humidity for the southeast. These bodies of water are, also, a moderating influence on temperatures along the coasts and for perhaps a 100 miles inland from the Gulf and a somewhat less distance inland from the Atlantic coast. They operate, therefore, to produce more even temperatures, both throughout the day and from summer to winter; i.e. summer maximum temperatures are lower and winter minimum temperatures are higher in the coastal strips than farther inland. (Note: Because the air flow over the U. S. is primarily from the west, the Atlantic Ocean does not exert nearly the same degree of moderating influence on east coast temperatures as does the Pacific Ocean on West coast temperatures; the Pacific Ocean effect will be discussed in another article of this series.) As a matter of interest, it might be helpful to mention that the reason large water bodies, such as the Gulf and the Atlantic, ameliorate coastal temperatures is that the deep water heats up more slowly in the daytime and in the summer than does land; similarly, water surfaces cool more slowly at night and in the winter than do land. Therefore, the water is apt to be warmer than the land at night and in winter, and cooler than the land in day and in summer.

4. All other things being equal, the closer an area lies to the equator the warmer it is. However, in climatology, as in other fields including industry, all things are rarely equal. For instance, equatorial regions, particularly the rainy humid tropics, practically never experience the high temperatures found in a great many areas to the north and south of the equator. Not long ago, the writer worked over two years in rainy tropical Africa, less than 500 miles from the equator, without experi-

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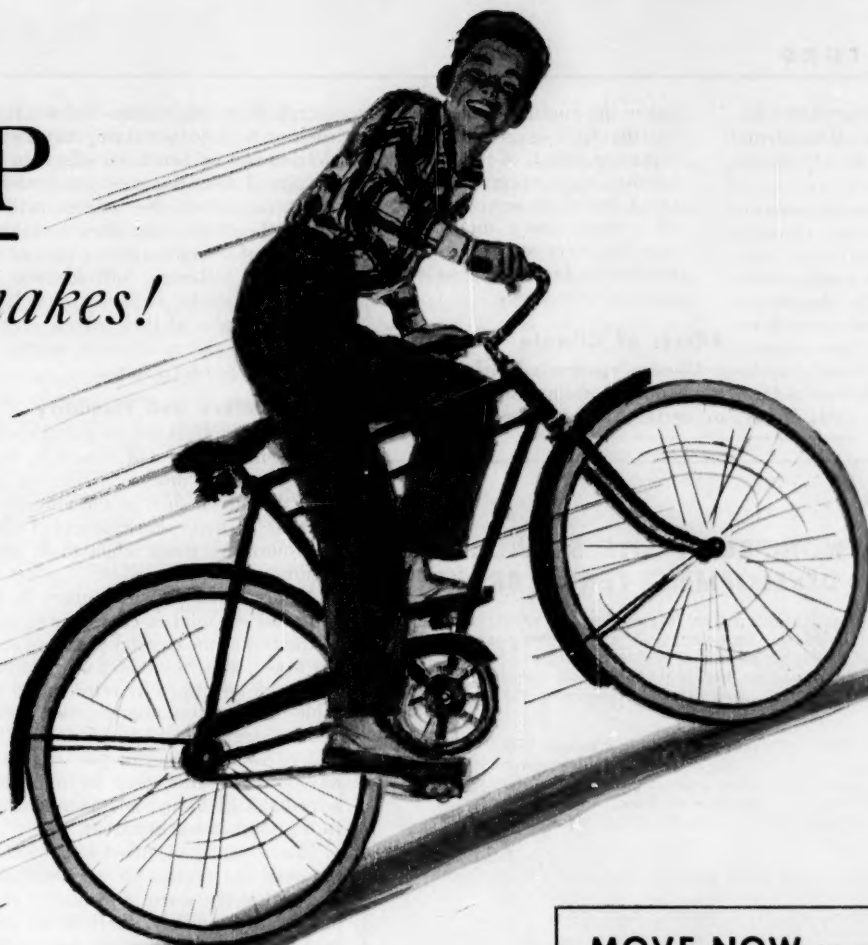


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encing the high temperature he found when he stepped off the plane afterwards one hot July afternoon in New York City.

In the United States, the southeast area has a warmer climate than the northeastern states because, if for no other reason, they are farther south. On the other hand, summer temperatures in Birmingham, Alabama, are higher than in Pensacola, Florida, even though Pensacola is 200 miles farther south. Of course, this is be-

cause the cooling effects of being on the Gulf is greater than the warming effect of being farther south. Other examples could be cited, but these serve the purpose of demonstrating that one geographic characteristic can modify another as far as the resulting climate is concerned.

## Effects of Climate

Obviously, some industrial plants and some operations are more vulnerable to certain climate factors than are

others. Also, one climate characteristic, such as high temperature, may have a detrimental or beneficial effect on one industrial operation and practically no effect on others. No attempt will be made, therefore, to produce an exhaustive list of climatic effects; instead the discussion following will identify the primary climatic factors and will include examples of their effects on typical human and mechanical operations in the southeastern states.

## Temperature and Humidity

Human comfort can be gaged closely from temperature and humidity readings. There are other contributing factors, of course, such as the absence or presence of direct sunshine and of wind, and there are times when these latter factors are not negligible.

As described earlier, winters in the southeast are mild as compared to most of the rest of the country; heating costs are lower, also. Some idea of the differences can be gained by referring to the table which gives the normal annual heating degree days\* for various cities. The cities with lower degree day totals have lower heating costs. An immediate advantage of industrial plant location in the southeast is apparent.

This advantage is offset somewhat by the need for cooling or air conditioning during the warm and humid summers. Unfortunately, there is no generally accepted index to air conditioning requirements that parallels the use of the heating degree day in determining heating requirements. The reason for this is that, in air conditioning, humidity is as important as temperature.

Perhaps the most comfortable temperature range is between 65° and 75° although this will vary with individuals and with the amount of physical work being done. Heavy workers find somewhat lower temperatures more acceptable while desk workers find temperatures lower than 70° uncomfortable. In the comfortable temperature ranges high humidities are not particularly important except to heavy labor. However, at temperatures much lower than these, high humidities lend an additional chill to the air and make it feel colder than the thermometer would seem to indicate; this is a usual situation during the southeastern winters, especially near the coastal areas. In summer, when daytime temperatures consistently exceed, say, 80° to 85° with high humidities, most people experience slight discomfort; at tempera-

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tures above 90° with high humidities, nearly everyone feels the weather to be sultry and oppressive. (The effects of very low humidities will not be discussed here since very low humidities occur only rarely and briefly in the southeast; they will be covered in another article in this series.)

Human comfort is important to industrial operations since, unquestionably, worker efficiency drops outside the comfort zone, and the greater the departure of conditions from optimum, the more decided the decrease in efficiency. Some method of air cooling or air conditioning becomes most desirable, therefore, in southeastern industrial plants because of the usual summer weather. Air conditioning, is of course, the most satisfactory solution, but it is also the most expensive. At temperatures below 90°, forced ventilation with fans is reasonably effective even with high humidities, but this becomes nearly useless as a cooling method at temperatures above 90° in the southeastern states. It is only natural, therefore, that air conditioning is becoming widely accepted in the southeast, and, no doubt, not many years from now nearly every office and most industrial plants of importance will be air conditioned, at least in part.

#### Other Effects

Aside from human comfort considerations, high humidities and temperatures have other effects. For example, under such conditions blast furnace efficiency decreases; inferior castings are formed at 80° temperatures and a relative humidity of 80%; electric equipment and electronic devices are more prone to failure; paper, cloth, and leather suffer from mildew; gummed flaps stick on unused envelopes; steel rusts excessively with relative humidities around 80% or more, and this effect is accelerated by higher temperatures.

In many industrial processes, water is circulated through cooling coils or jackets surrounding tanks or tubs in which products are being formed or, conversely, the tanks may be filled with water which bathes coils through which the product is pumped for cooling. In such cases, the temperature of the water as it is drawn from the outside becomes important since, if its temperature is too high, its cooling effect is reduced. For some processes this may be important, say, along the Gulf Coast where summer temperatures of spray

ponds and shallow lakes are quite high. Other processes require preheating of indrawn industrial water before it can be used, and in these cases the higher outside water temperatures are of advantage.

One example of the importance of water temperature will suffice. In the commercial production of ammonia, the ammonia gas is synthesized and then dissolved in water to obtain the commercial product. In this step, cool water is superior because more than twice as much ammonia gas can be dis-

solved in water at a temperature of 60° than in water at 95°. In storing or shipping the product in tanks, temperature is important, also, because the gas tends to boil out of solution at high temperatures.

It has already been implied that worker efficiency decreases rapidly at temperatures above 90°; the same is true at temperatures below 40°. Again, this range will differ with individuals and with the type of work being done, but this statement should suffice as a generalization applicable particularly



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## WEATHER FACTORS

to outdoor employees, such as construction workers, and to those working in exposed plant interiors. Lower temperatures affect or limit many activities. Non-enclosed paint shop operations slow at temperatures below 60° and cease entirely at below 40° readings; up to 1/4 of the parts for aircraft frames cannot be pressed satisfactorily at temperatures below 40°; and precision machining suffers in quality at such temperatures. The pouring of concrete and forms stripping at below freezing temperatures is avoided unless for some reason, greatly increased costs are warranted for the necessary protective measures. Also, at below 32° temperatures it becomes difficult to operate compressed air equipment under high humidity conditions; the air moisture condenses and freezes on the exhaust outlets, stopping the equipment. Stockpiled coal or coal being shipped in railroad cars begins to freeze at temperatures which depend on the wind and the amount of moisture in the coal; frozen coal, of course, must be knocked apart with sledges or thawed before it can be handled. The conveyor belts also tend to freeze under the same conditions. On the other hand, stockpiled coal does not oxidize and depreciate in quality as fast under winter conditions as in the hot summer. For example, coal that can be stored for three months in winter and still retain its coking qualities may not retain equal qualities after more than one month of summer storage, when spontaneous combustion possibilities increase also. The optimum coal storage temperature range, from all standpoints, seems to be about 40° down to just above freezing.

Obviously, industrial cold weather problems are not as acute in the more temperate southeastern winters as they are where the winter climate is more rigorous. However, below freezing temperatures are not uncommon in most parts of the southeast as will be seen from the table. Even so, during the rather brief cold spells, there are many precautions or protective measures that can be taken, and, in general, construction activity can proceed with less weather interference than to the north or west. For instance, alcohol can be vaporized into the lines of compressed air equipment to prevent moisture freezing at the exhaust ports.

### Precipitation and Winds

By far, most of the precipitation in the southeast falls in the form of rain. This area is well watered, and the sup-

ply is sufficient for most industrial purposes, insofar as that statement can be made concerning any area of the country. Of course, when it is understood that the United States used 221 billion gallons of water daily in 1955, and that an estimate of 597 billion gallons daily use has been forecast by 1980, it should be more than obvious that there is not enough water to go around. Nevertheless, the southeast as a whole is better off than most parts of the country and no worse off than any. There are spotty exceptions to this general statement, however, and before locating any plant with a high industrial water requirement, a thorough survey of the local water supply and potential is indicated axiomatically.

### Traffic Hazards

Snow, sleet, and rain that freezes as it falls are definite traffic hazards, and moderate to severe occurrences can cause plant shutdowns for this reason alone. Of course, the degree to which the falls are effective in stalling traffic depends largely on the community experience in such problems. A snowfall that would cause little comment in New England would probably paralyze traffic in North Carolina for a short time. While snowfalls of, say, five inches or more are uncommon in the southeast (and quite rare in the southernmost states), when they do occur they cause a good deal of trouble temporarily. Freezing rain will collect on electric power transmission lines and on telephone lines, breaking them if the ice accumulation is heavy enough. Freezing rain is not an uncommon event in the more northern states of the southeast area. The table gives the number of days per year with snow or sleet in representative cities.

Rainfall will halt or limit outdoor construction. Of all such operations, excavation activities are the most affected which, of course, is of concern during the construction of the plant. As described earlier, in the southeast the rainfall is fairly well distributed throughout the year. Winter rainfall tends to be more even and widespread, and summer rainfall is mostly of the shower type accompanied frequently by thunderstorms and, much more rarely, by hail. Hail is of little moment as far as industrial plant location is concerned since its main effect is one of damage to glass that may be exposed to the sky; on the average it occurs only once or twice a year at any one spot in this area.



Summer thunderstorms in the southeast are common, and when they are well developed storms, which is frequently the case, their high winds, lightning, and heavy rainfall can cause considerable damage within a short time to power and telephone lines and to roofing that is not well maintained. However, such thunderstorm damage is nearly always local in character because of the spotty nature of the storms, but on occasion a thunderstorm line several hundred miles long will form (called a "squall line") and cause damage along most of its length as it moves in an easterly direction. Local flash floods can result, too. These phenomena are not peculiar to the southeast since they can happen nearly anywhere in the country, but the southeast does have more summer thunderstorms than most other sections. The table compares average annual thunderstorm occurrences for representative cities.

The same weather circumstances that give rise to thunderstorms can also produce tornadoes, and, although they are observed far less frequently than thunderstorms, tornadoes are not rare in the southeast by any means; on the other hand, not as many occur in the southeast as in the midwest. Tornadoes can occur in any month in the southeast, but they are more usual in early Spring than at any other season. Their destructive path is small in width (usually a few hundred yards) and short in length (perhaps less than 20 miles average). Naturally, most destruction ensues near the direct path of the tornado, and light-frame dwellings and buildings, such as barns, suffer damage most frequently. Inadequate ground anchorage and the lack of adequately strong connections between the various members of the dwelling or building seem to be the main reasons buildings are damaged or destroyed by tornadoes. Modern reinforced concrete and steel construction, firmly rooted in a solid foundation, is immune to tornado damage except to the glass windows and, possibly, to the roof area.

Many of the record rainfalls in the southeast have been caused by hurricanes. These storms breed in the Caribbean and in the adjacent waters of the Atlantic to the east, mostly during the June through October months. Naturally, not all hurricanes strike the United States coast or come close enough to affect the weather appreciably, but those that do usually cause heavy to torrential rains over a large area. When

hurricanes come inland from the Gulf or the Atlantic, the most severe damage nearly always occurs along the immediate coastal strip because of the heavy wave surges (popularly, though incorrectly, called "tidal waves"; the correct term is "storm surge") accompanying such storms. As the storm progresses inland, it tends to spread out over a larger area and weaken in intensity, but the winds may still be high enough to damage some roofs and to uproot trees from ground softened by the heavy rains; power and communication lines and windows may experience damage, also, particularly from falling trees and windblown debris; and the heavy rains can cause local flooding. It should be apparent, therefore, that hurricane danger is greatest in exposed coastal areas which the "storm surges" can inundate. Nearly all hurricane damage to an industrial plant can be avoided by locating it away from the flat coastal region in a site not subject to flooding, and by providing adequate roof anchorage and appropriate storm shutters to protect windows.

In conclusion, it can be seen that the climate of the southeast offers many advantages for industrial and plant sites, not the least of which are the comparatively mild winters. The beach areas from Norfolk southward, and on the Gulf coast, offer seashore recreation for employees; also, the Blue Ridge mountains of the Carolinas, Virginia, and Tennessee attract many vacationists including hunters and fishermen.

Additional information or detailed figures on any point covered in this article can be obtained from the U. S. Weather Bureau, Washington 25, D. C.

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\*Heating degree days are calculated from the average of the high and low temperatures recorded each day. If the average is less than 65° the difference represents the value for that day. If the average is 65° or more, no heating requirement is assumed. An average temperature of 45° produces 20 heating degree days; an average of 65°, 70°, 75°, etc., produces zero heating degree days.

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LA SALLE + PERU + OGLESBY  
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LEARN WHY such companies as Ford, General Motors, Chrysler, Hughes Aircraft, Northrop, SPS, Sylvania and others choose ORANGE COUNTY as the place in which they wish to live, work and play.

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## BE FIRST IN FLORENCE

SOUTH CAROLINA'S

★ CASHUA INDUSTRIAL  
DISTRICT (63 acres)\*

OR

★ AIRPORT INDUSTRIAL  
PARK (68 acres)\*

- Near intersection of new N/S Interstate Highway 95, and E/W Interstate Highway 20
- Two Major Railroads
- Three U. S. Highways
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- City Water & Sewage Disposal
- Plant Financing
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\*#1 may assist in setting restrictions for other development

For detailed analysis or services contact Harry Elliott, Exec. V.P., Florence Chamber of Commerce, Box 948, Phone MOhawk 22483, Florence, South Carolina. Strictest confidence observed.

community resource  
surveys available

## Manpower Materials Markets

For Community surveys, including available plant locations, write Industrial Development Department, Box 2447, Jackson, Mississippi. All inquiries confidential — and without obligation — of course.

Mississippi  
Valley Gas Company  
JACKSON, MISSISSIPPI

## DEVELOPMENT BRIEFS

### Industrial Park Being Developed Near Pittsfield

PITTSFIELD, MASS.—An industrial park, described as the first of its kind to be located in Berkshire County, is being developed on a 134-acre tract here by the Pittsfield Industrial Development Company.

William A. Whittlesey III, president of the company, said his organization had engaged Vappi & Company, Inc., of Boston to draw up a master plan for the industrial park.

Mr. Whittlesey said his firm is looking for two types of potential occupants for the park—local industries with growth potential and non-local firms which might like a site in this area.

He added that the organization plans to offer package deals which could include building plants to a client's specifications for purchase or lease-back.

The land earmarked for the park is contiguous to the Boston & Albany Railroad main line and the intersection of Routes 8 and 9.

### New Rail Line Is Certificated For Dallas Area

DALLAS. The most recent rail line in the nation to be certificated by the Interstate Commerce Commission, and the first new railroad for this area in the past half century, is scheduled for completion in December.

Named Great Southwest Railroad, Inc., the line will be 16.5 miles long and will serve the Great Southwest Industrial District which lies in the exact center of the Dallas-Fort Worth metropolitan area.

The new line will tie the industrial metropolis directly to two major carriers, the Chicago, Rock Island & Pacific Railroad to the north, and the Texas & Pacific Railway to the south.

To cost approximately \$1,582,000, the line is expected within the next five years to reach a freight volume of 25,000 inbound and outbound loaded cars annually.

Angus G. Wynn, Jr., is president of the new railroad and of Great Southwest Corporation, developer of the vast industrial district.

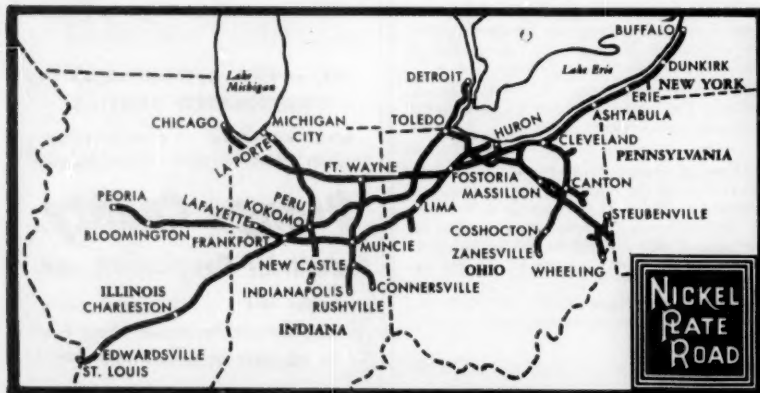


Thinking about locating a plant in Ohio, Indiana or Illinois? Then check Nickel Plate's survey service.

NKP has information on available sites—plus facts on utilities, taxes, transportation and other data you'll need to know. In fact, every NKP survey is tailor-made to your requirements.

Let NKP know those requirements. Please contact M. H. Markworth, Nickel Plate Road, 1405 Terminal Tower, Cleveland 1, Ohio. MAin 1-9000.

*I had to find a plant site...*  
**NKP SURVEYS MADE MY JOB EASIER**





# RECEIPTS



By Suzanne Johnson

## For Your General Check List

**Selecting, Planning, and Managing Office Space** by Beryl Robichaud. Drawing on the actual experiences of many companies, this comprehensive manual gives practical help on every phase of space management—from finding the best location, and deciding whether buying, building, or renting will be most economical, through to time and cost saving cleaning and maintenance methods.

In it you will find direct, reliable solutions to such problems as how to determine how much space the office needs, how to plan and layout for personnel and work flow, how to handle lighting and other "human" factors, how to decorate for staff and public needs and even to arrange moving with the least disruption of service. McGraw-Hill Book Company, Inc., 330 West 42nd Street, New York, New York. 356 pages. \$8.50.

**Communities with Locally Financed Industrial Development Organizations.** A compilation of formally constituted organizations currently carrying on industrial development and expansion programs. Office of Area Development, U.S. Department of Commerce, Washington, D. C. 45 pages.

**Atomic Energy For Small Businesses.** This booklet is an introduction and a guide to those interested in exploring the business potential of radioisotopes. It explains in simple terms how the small businessman can increase savings and profits by the use of simple nuclear techniques. New York State Department of Commerce, 112 State Street, Albany, New York. 28 pages.

**Analysis of Work Stoppages, 1957.** Superintendent of Documents, Government Printing Office, Washington, D. C. 35 pages. 30 cents.

**Air Commerce Traffic Pattern, 1957.** This booklet presents the actual aircraft departures from each station in continental and territorial United States and the loads put aboard the aircraft at the station during the calendar year 1957. The actual air-carrier departures, the number of enplaned passengers, the tons of enplaned mail and cargo are the items reported. The passengers as a percent of United States total is computed for each community. Superintendent of Documents, Government Printing Office, Washington, D. C. 36 pages. 30 cents.

**Committee for Economic Development Annual Report 1957.** Committee for Economic Development, 711 Fifth Avenue, New York, New York. 76 pages.

## For Your Area Check List

**Chemical Industry Opportunities in Kentucky.** This booklet presents in some detail the advantages and opportunities inherent in Kentucky as the location for plants manufacturing chemicals and allied products. Section heads include Chemical Production, Raw Materials, Power and Fuel, Transportation, Industrial Sites, Manpower, Taxes, Regional Resources and Markets. Department of Economic Development, Commonwealth of Kentucky, Frankfort, Kentucky. 88 pages.

**At The Top of The Berkshires.** Statistical information on the North Adams, Mass. area. It includes a complete array of statistics, maps and tables, on various aspects of the area. North Adams Chamber of Commerce, North Adams, Massachusetts. 45 pages.

**Investing in Mexico.** A summary of information concerning investments in Mexico. Prepared by American & Foreign Power Company, Inc., 2 Rector Street, New York 6, New York. 37 pages.

**Oklahoma Industrial Data and Supplemental Listings—Spring, 1958.** Listings are given by town and county, giving population and pertinent information regarding the buildings available. Oklahoma Development Council, 1120 Republic Building, Oklahoma City, Oklahoma. 11 pages.

**1958 Canadian Trade Index.** Gives alphabetical list of Canadian manufacturers, alphabetical list of products manufactured, and includes French, Spanish and Portuguese sections of all listings. Canadian Manufacturers' Association, 67 Yonge Street, Toronto 1, Canada. \$10.00. 1083 pages.

**Fifty Million Consumers.** Proceedings on a Conference on the Economic Future of the South, sponsored by the Southern Research Institute, Birmingham, Alabama. Includes a series of economic projections for the next quarter century for an area comprising Virginia, the Carolinas, Tennessee, Georgia, Florida, Alabama, Mississippi, Louisiana, Arkansas and Kentucky. Director, Southern Research Institute, Birmingham 5, Ala. 93 pages.

**Arizona County Base Book.** Statistical data on the State of Arizona. Bureau of Business and Public Research, University of Arizona, Tucson, Ariz. 151 pages.

**Available Plant and Site Summary, State of Illinois.** Division of Planning and Development, 116 State Capitol Building, Springfield, Ill. 40 pages.

**The Genesis of the Aviation Industry in North Texas.** Bureau of Business Re-

search, University of Texas, Austin, Texas. 50 cents. 23 pages.

**The Battelle Memorial Institute Report of Economic Development Opportunities for Greater Windsor—Canada's 10th Largest Community.** Greater Windsor Industrial Commission, 369 Pelissier Street, Windsor, Ontario, Canada. 32 pages.

**Site Map, Southern New Jersey.** Map of the area showing actual locations available for development. Southern New Jersey Development Council, 9 Boardwalk Arcade, Atlantic City, New Jersey.

**Portland and Oregon's Willamette Valley.** Color brochure giving industrial location factors. Area Development Department, Portland General Electric Company, 621 S. W. Alder Street, Portland, Oregon. 16 pages.

**Planning for the Burlington Region, Chittenden County, Vermont.** A report for Greater Burlington Industrial Corporation prepared by Charles W. Eliot, Planning Consultant, Greater Burlington Industrial Corporation, P. O. Box 613, Burlington, Vermont. 34 pages.

**Industrial Opportunities in the Central Ohio Valley.** An analysis of the economic and industrial advantages of the area. Central Ohio Valley Industrial Council, c/o Chamber of Commerce, 922 Ninth Street, Huntington, West Virginia. 21 pages.

**Phoenix Resources.** The facts behind the upsurge in growth of the Phoenix area. Area Development, General Sales Department, Arizona Public Service Company, P. O. Box 2591, Phoenix, Arizona. 15 pages.

**A Guide to Industrial Locations in the San Francisco Bay Area.** This guide will help answer several basic questions confronting the industrialist seeking a site in the Bay Area. It covers technical aspects of site locating and gives a brief survey of such equally important topics as housing conditions, recreational, cultural and educational facilities in the area. San Francisco Bay Area Council, World Trade Center, San Francisco 11, California. 56 pages. \$2.50.

**Caribbean Area Tourist Trade Index.** Bureau of Business and Economic Research, University of Miami, Coral Gables 46, Florida. 33 pages. \$2.30.

**Fourth Annual Iowa Industrial Development Clinic.** Transcript of the proceedings. Iowa Development Commission, 200 Jewett Building, Des Moines, Iowa. 100 pages.

**The Arkansas Encyclopedia.** A boxed compendium in three volumes presenting facts, pictures, maps and charts about the Arkansas economy, along with a directory of Arkansas industries. Arkansas Industrial Development Commission, State Capitol, Little Rock.

**Economic and Industrial Facts about Greater Portland.** Area Development Council, 142 Free Street, Portland, Maine. 17 sections.

**Economic and Sociological Plant Location Factors in Auburn, Maine.** Auburn Business Development Corporation, Auburn, Maine.

**Winona Invites You.** A special 48-page section in the July 29, 1958, issue of the Winona Daily News, Winona, Minnesota.



## X MARKS THE SPOT HERE AT JOHNSON CITY, TENN.



On the most important rail link between the Great Lakes Region and the Eastern Seaboard . . . within 600 miles of over half the national market.

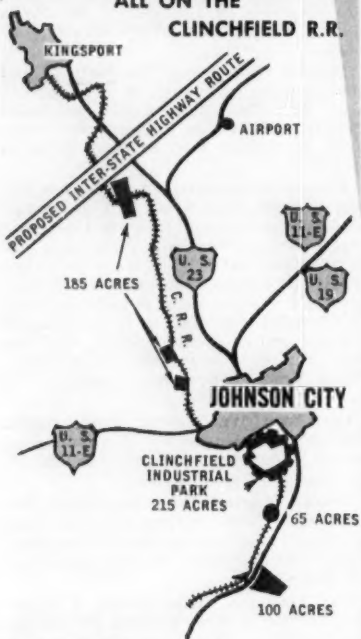
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man . . . W. R. Grace . . . Mon-  
roe Calculating . . . all these  
leaders are now located and plan-  
ning expansion in the "Great Valley"  
of Upper East Tennessee.



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CLINCHFIELD R.R.



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- Metropolitan area of 225,000 population
- \$2,000,000.00 Industrial Bond Program
- Complete Industrial Location Services

**SEND FOR:** A copy of Johnson City Industrial Sites. Also ask for "Reports from Industry," a study of reasons why national manufacturers came to Upper East Tennessee, and why they expect to stay there and grow.

#### THE INDUSTRIAL COMMISSION \*

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JOHNSON CITY, TENNESSEE

## GOVERNORS CONFERENCE



Governor Orval Faubus of Arkansas, chairman of the Committee on Industrial Development of the Southern Governors Conference, is shown at the speaker's rostrum giving the annual SASI economic report to the Conference. (Shuffling charts on easel is ID Editor Conway who has for several years served as consultant on regional development programs).

## Southern Governors Push Regional Development Plans

LEXINGTON, KY. You would never know it from reading the newspaper accounts (devoted almost exclusively to segregation squabbles) but the Southern Governors held their annual conference here last month and devoted the better part of three days to constructive programs for promoting regional development. And foremost among those spearheading industrial development discussions was Arkansas Governor Orval Faubus.

The three day meeting included panel discussions of timber and mineral resources, education, freight rates, highways, and industrial development programs. Faubus, who has served as chairman of the Committee on Industrial Development for the past three years, presided over the latter discussion.

Summarizing regional progress during the past year, Governor Faubus noted that the Southern states have withstood the business recession better than Eastern and Midwestern areas. He referred to the bi-monthly federal labor survey which has shown consistently that "distressed areas" are more nu-

merous outside the South.

The Arkansas Governor also gave the Conference the results of the new plant summary compiled by the Southern Association of Science and Industry. This report revealed that 688 new plants were located in the South during the first half of 1958, as compared with 672 for a similar period in 1957.

Among proposals and recommendations submitted by Governor Faubus to the Conference was a regional "business climate resolution" pledging governors of all of the Southern states to work personally to maintain a healthy business climate. Another recommendation set as an ultimate objective a comprehensive planning and zoning program for every community in the region.

Finally Governor Faubus outlined a plan whereby the Governors' Conference would establish the SASI as a permanent operating affiliate to carry on development studies throughout the year. For some years the association has served in a consulting capacity, preparing an annual report for the Conference.



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NOVEMBER 1958

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## I. D. SECRET SITE SERVICE

There may be sound reasons why you should wish to obtain preliminary information on possible sites without revealing your interest or identity. Recognizing this, INDUSTRIAL DEVELOPMENT offers a Secret Site Service to readers who hold positions of responsibility with manufacturers or other business firms having a legitimate interest in sites. This service is offered in cooperation with the development agencies whose advertisements you see in this issue. Here's how the plan works:

1. Complete the questionnaire below. Be specific to avoid wasting your time and that of cooperating research groups. DO NOT PUT YOUR NAME OR ANY IDENTIFYING INFORMATION ON THIS FORM.
2. Transmit this form to ID headquarters, giving your identification on a separate sheet. For convenience, just enclose a business card or letterhead.
3. When we receive your form, we will immediately assign a case number to your form and will refer to it thereafter by number only. Your identification will be placed in a separate confidential file to be used only in communicating with you.

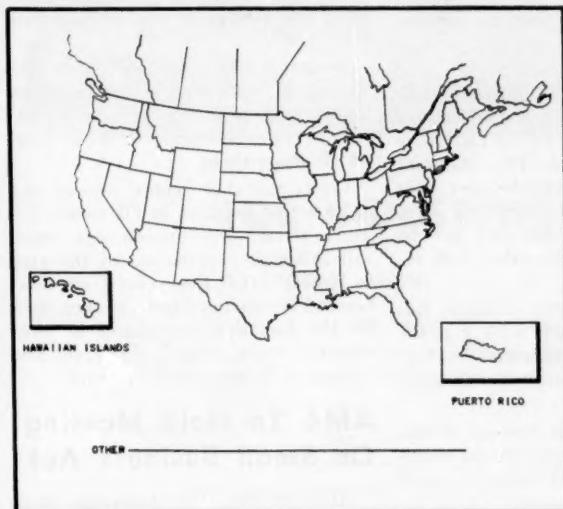
4. We will then send photostatic copies of your inquiry form to development agencies serving the area in which you are interested.

5. Those who have sites meeting your needs will return descriptive material to us, addressing us by case number.

6. We will relay all proposals to you. If any proposal is of interest, you may ask for more detailed data through us or contact the agency direct. There is no cost or obligation—this is purely a service for ID's business readers.

### LIST YOUR REQUIREMENTS AS SPECIFICALLY AS POSSIBLE

**AREA OF INTEREST**—Draw a circle around the approximate area in which you are interested:



### TYPE OF SITE DESIRED

- ☐ Rural, adjacent to community with population less than .....
- ☐ Urban, in planned and restricted industrial district if possible.
- ☐ Water process, on stream with minimum flow of ..... gal./min.
- ☐ Dispersed, well removed from target areas or cities, for defense work.
- ☐ Other .....

### TRANSPORTATION SERVICES

- ☐ Rail siding required. Estimated annual tonnage .....
- ☐ Trucking service required. ☐ Adjacent to major highway.
- ☐ Airport for ☐ passenger service ☐ freight
- ☐ executive airplanes.
- ☐ Water transport ☐ barge ☐ ocean-going.

### UTILITIES

- ☐ Electric power. Ultimate total load ..... kw.  
Special demands .....
- ☐ Water. Required supply ..... gal./min. at ..... psi.  
Special demands .....
- ☐ Natural gas. Demand ..... cu. ft./day.  
Special demands .....
- ☐ Sewage. Special demands .....

### LABOR

- ☐ Union shop. ☐ Non-union shop. ☐ Depending on location.
- Skilled males ..... Semi-skilled males ..... Unskilled males .....
- Skilled females ..... Semi-skilled females ..... Unskilled females .....
- Special factors .....

### RAW MATERIALS

List principal items which influence your location economics:

Your approximate capitalization \$ .....  
Dun & Bradstreet rating .....

### BUILDING

- ☐ Desire to rent existing building, occupancy in ..... days.
- ☐ Desire to buy existing building, occupancy in ..... days.
- ☐ Want local group to erect building to our specs. and lease to us.
- ☐ Expect local group to provide bldg. below cost or gratis as inducement.
- ☐ Will erect own bldg. but interested in aid in mortgage financing.
- ☐ Will assume complete responsibility for building and financing.

### BUILDING SPECIFICATIONS

Floor area ..... sq. ft. Ceiling clearance ..... ft.  
Special requirements .....

Attach your card or letterhead to this form and mail to:

SECRET SITE SERVICE DEPT.

Conway Publications, North Atlanta 19, Ga.



## PLANNING PAYS OFF

## Centex Industrial Park Has Phenomenal Growth

CHICAGO. Careful advance planning is paying off in a big way in Centex Industrial Park, one of the fastest growing developments of its kind in the nation, heads of the project said at a progress report luncheon in the LaSalle hotel here last month.

The 720 acre area zoned for industry was announced about a year ago as an integral part of Centex' vast Elk Grove Village northwest of Chicago. Since then, 14 different companies have bought or signed leases for plant sites totaling 3,400,000 square feet, Marshall Bennett of Bennett & Kahnweiler, industrial realtors who are exclusive agents, announced. In addition, options have been taken on 1,300,000 more square feet, he said.

### Four Plants Built

Four new plants with a total floor area of 300,000 square feet have already been erected and are in operation. These are the Franklin McVeagh & Co. IGA Distribution Depot, Howell Tractor & Equipment Co., Crown Rheostat and Supply Co., and All-Weather Steel Products Co.

Bennett announced seven recently completed site acquisitions that have not been previously revealed. These include Hollander Storage and Moving Co., Cooper Industries, Inc., Sprague Iron Works, Inc., Groen Manufacturing Co., Dean Van Lines, Inc., and Leahy Business Archives. The seventh site has been sold to a group headed by Everett B. Michaels, who plans to erect a building for lease.

Earlier this year, it was announced that Sola Electric Company, Burcon Corporation and Portage Tool Company were locating in Centex Industrial Park with construction planned at a future date. All of the property disposed of thus far borders Pratt boulevard, with the exception of the Sola tract on Route 83.

Bennett stated that negotiations are

currently in process with ten other companies, including four which are nationally known.

Tom Lively, president of Centex Construction Co., Inc., largest home building organization in the country and the developer of the industrial park, said "growth of the park to date has exceeded all expectations and seems now to be 'snowballing' as tangible evidence of the location's many advantages increase."

The industrial park was conceived to give balance to the 6,000 home residential community Centex is building on 1500 acres in the west half of Elk Grove Village, Lively stated. The Hotpoint Company holds 770 acres between Centex Industrial Park and the home area. Thus, about half of the new suburb will be homes and the other half industry.

"Because Elk Grove Village has been well-planned, there isn't a possibility of industry or residential development infringing upon one another," Bennett pointed out.

"With the favorable ratio of homes to industry, the Village should enjoy one of the lowest tax rates in Cook County," he added.

### Techniques Studied

Bennett disclosed that prior to launching the industrial park, planners visited many other similar projects in the nation to study techniques and avoid pitfalls, collecting examples of covenants, sales and lease contracts and plan layouts. Some of the largest corporations were interviewed regarding their basic requirements for a land site.

"We were advised that they wanted a rectangular parcel having rail and private utilities in the rear and street and public utilities in the front. Depth requirements varied from 350 to 700 feet," he stated.

Centex park was laid out with these considerations in mind, avoiding odd

shaped parcels and offering sites suited to accommodate the growth of small or large users, Bennett said.

He also cited location, in proximity to two main toll roads in one of the few sections where extensive tracts suited to industry are still available, as a prime reason for success of the park. Adequate utilities—water, sewage disposal, storm sewer, electric power, gas, telephone, and rail siding service—are other industry essentials which the park has been able to supply, he said.

"Flexibility of programs through which companies can acquire sites has been another big factor in attracting prospects," Bennett declared. He said that a site can be purchased for cash or on a sales contract, with or without an option on adjoining land for future expansion. A purchaser may retain his own architect and contractor and arrange his own financing, or Centex will build for him on a sale or long-term lease basis.

Hausner & Macsai and A. J. Del Bianco & Associates are retained by Centex as joint architects for the park, with services available to those firms which desire them.

Lively said that Centex' present rate of home construction in Elk Grove Village is about 1,000 houses a year, which will bring the population of the area to about 32,000 five years from now. Ground is scheduled to be broken soon for the first shopping center to serve the area at the corner of Higgins and Arlington Heights roads, he said.

## AMA To Hold Meeting On Small Business Act

NEW YORK. The American Management Association will present here December 1 and 2 a series of sessions to explain the Small Business Administration's plans for carrying out the Small Business Investment Act of 1958. Several hundred individual and institutional investors interested in financing small enterprises are expected to attend the meeting which will be held at the Savoy-Hilton Hotel.

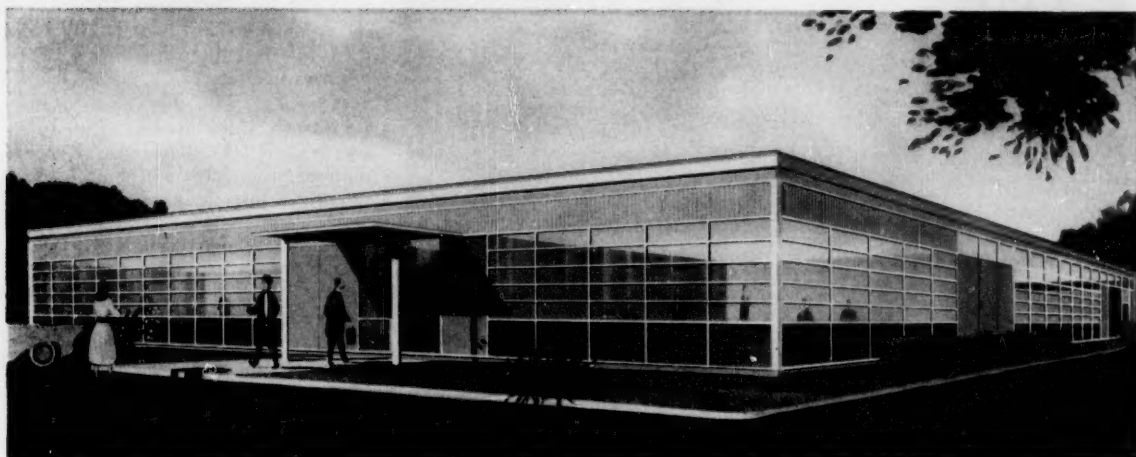
Senator John Sparkman of Alabama, chairman of the Senate Small Business Committee will be the opening speaker at the meeting. In subsequent sessions, representatives of the Small Business Administration will outline the policies and procedures they will follow in administering the law. Other leaders also will present explanatory discussions during the course of the meeting.



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has the talents! . . . an Organization staffed with SPECIALISTS who are competent in EVERY phase of Industrial Development . . . an Organization which PRIDES itself on its OWN Planning Department of Architects, Engineers . . . and its OWN CONSTRUCTION CREWS, who will build these Model Plants to the requirements of the CLIENT . . . AND FROM THE GROUND UP!

. . . introduces the MODULAR UNIT . . . construction that is EXPANDABLE — Planned For Future Growth! As YOU grow, your building grows WITH YOU . . . allowing expansion to double or even triple in size!

AND . . . C/P offers the MOST COMPREHENSIVE and FLEXIBLE financial program permitting occupancy on a variety of purchase or lease terms!

**CEREL-PERINI ASSOCIATES, INC.**, with Model Parks in NATICK, WEST-BORO, EAST NATICK, and FRAMINGHAM, MASS., is comprised of pioneers in the fields of Land Development, Engineering, Construction, and Financing . . . A COMPETITIVE COMBINATION!

**THE C/P OFFICES**  
are open Daily and Saturdays  
from 8:30 A.M. to 6 P.M.  
Evenings by appointment.

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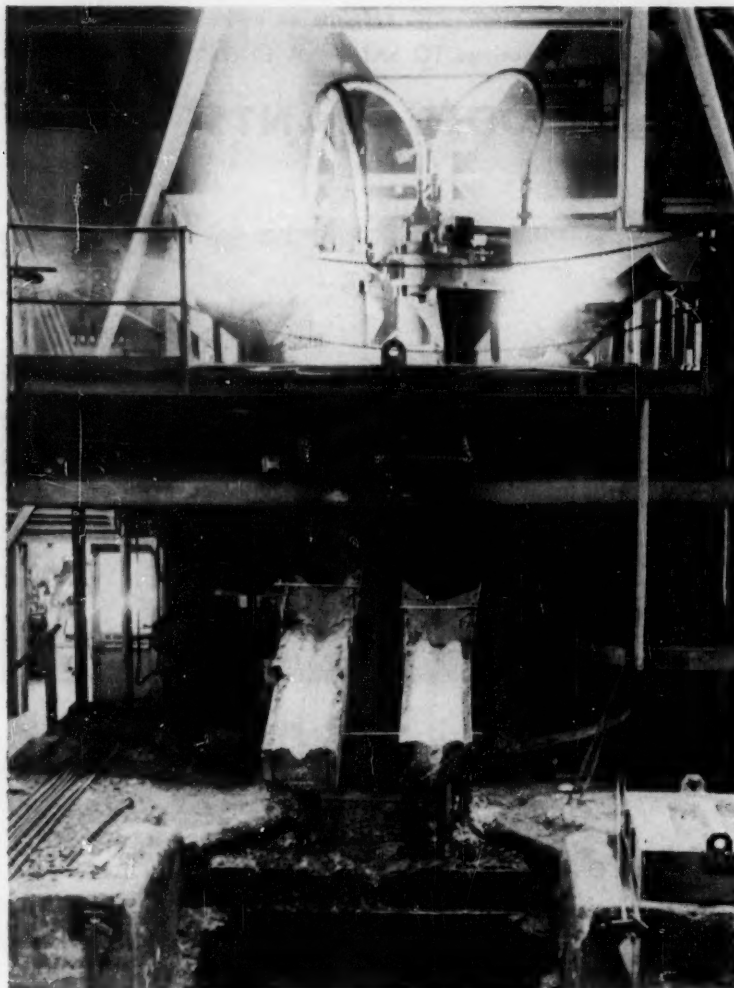
*Land Planning and Construction Organization*

**BOSTON WORCESTER TURNPIKE (ROUTE 9)**

**NATICK**

**MASSACHUSETTS**





Shown is the 1,000 KVA electric furnace at the prototype plant of Strategic Materials Corporation in Niagara Falls, Canada. The slag tap is on the left, while the metal tap is on the right. The plant utilizes the new "Strategic-Udy direct iron reduction process."

## New Steel-Making Process Cuts Capital Requirements

PITTSBURGH. A new steel-making process which could have important plant location implications, has been announced here. Designated the "Strategic-Udy direct iron reduction process" the system is the result of collaboration between Strategic Materials Corporation and Koppers Company, Inc.

Economic performance of integrated steel plants employing the process are guaranteed by the two firms.

In a joint statement, John Udd, Pres-

ident of Strategic Materials and Fred C. Foy, President of Koppers, said that this guarantee depended only on the availability of reasonably priced electric power and the advantageous location of raw materials.

The willingness of the two companies to certify the economic performance of the Strategic-Udy Process is based largely on the significant results obtained in a series of tests now being completed at a semi-works plant operated by Strategic Materials Corporation

at Niagara Falls, Canada.

In tests of standard shipping-grade iron ore, semi-steel was produced in the Strategic-Udy patented electric furnace with a power consumption averaging 1,200 kilowatt hours per ton of metal. Engineering projections indicate that, in full size commercial plants, power consumption per ton would be reduced to 1,000 kilowatt hours. This power factor amounts to about half of that used in conventional electric furnace pig iron smelting.

Coinciding with the announcement, Dr. Marvin Udy, inventor of the process, and R. A. Blackburn, Koppers representative, gave a technical paper recently before the annual meeting of the Association of Iron and Steel Engineers at Cleveland, describing the process and presenting technical and financial data on the joint development program being carried on at the Niagara Falls prototype plant.

Iron ore, coal and limestone are fed into a rotary kiln where partial reduction of the ore takes place. The hot kiln product is directed immediately to an electric furnace, where a short arc held slightly submerged in the slag provides an intense, hot reducing zone in which the charge is quickly and completely reduced.

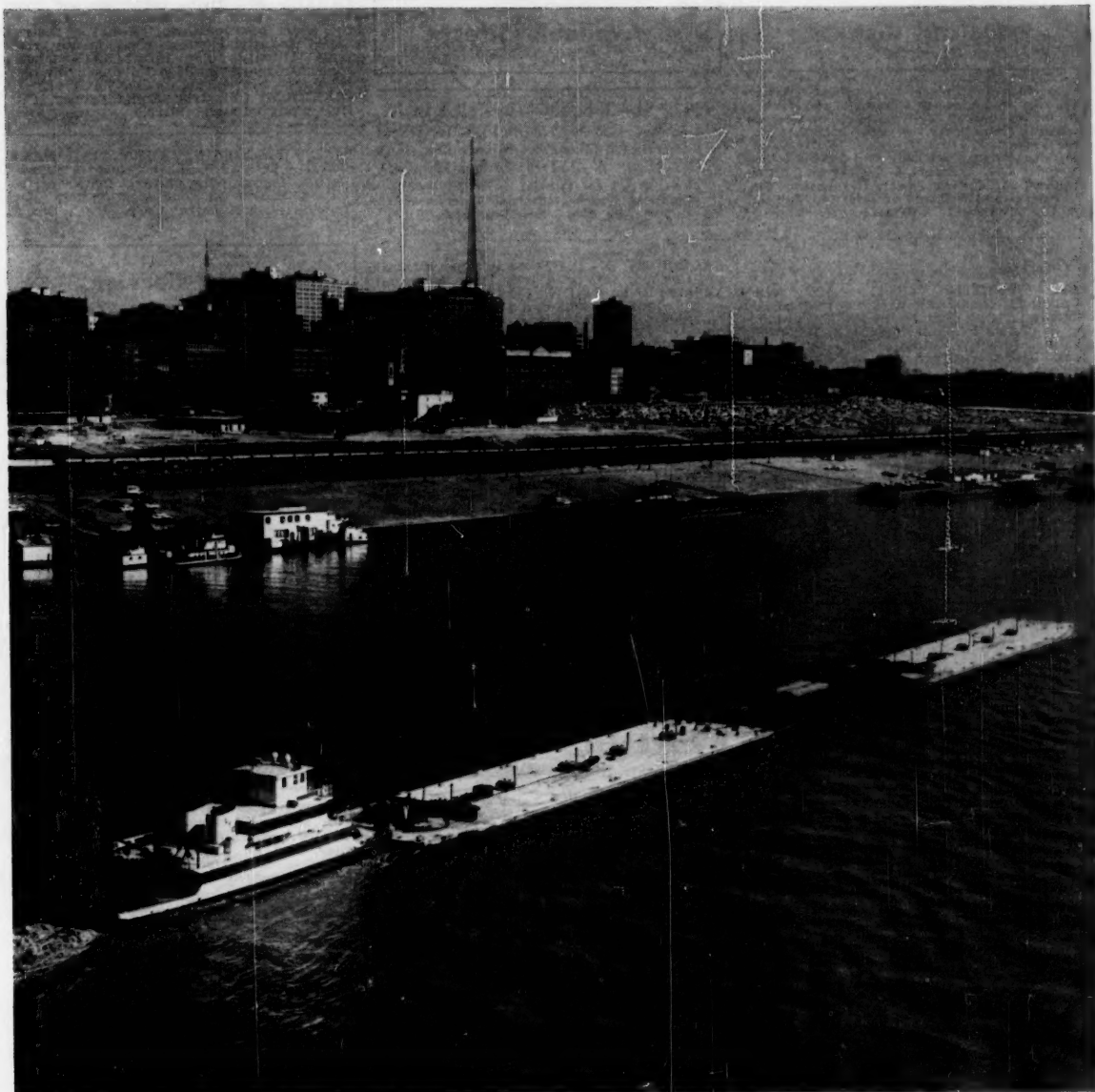
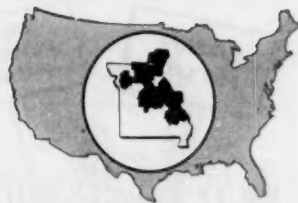
A principal advantage of the process is the low capital investment required. For example, the cost of a 600 ton per day plant employing the Strategic-Udy Process was estimated at approximately \$50 per ton of annual capacity. Manufacturing costs for this same size plant would vary from \$30 to \$50 per ton of pig iron depending on price of power and raw materials. Additional figures showed that plants of even smaller capacity were economically feasible.

Other major advantages of the process cited were that:

1. Most ores may be used, including flue dust, without special preparation such as agglomerating, sintering, briquetting, or nodulizing.
2. Complex ores, now of little value, may be used. The process may be designed to selectively remove phosphorus, sulfur, copper, nickel, manganese, and other elements.
3. The process permits latitude in selecting a reductant and fuel, since coal, peat, lignite or coke may be used.
4. Control of carbon content is possible. Pig iron with a carbon content of 3.5 per cent, or semi-steel of 0.5 per cent carbon can be directly produced.



**Union Electric Service Area . . .  
strategic center of America  
for INDUSTRIAL WATER**



The mid-continent rivers make up the world's greatest inland waterway, connect 29 markets in 20 states.

**contact:** *J. E. Johanson, Manager, Industrial Development,*  
**UNION ELECTRIC CO., St. Louis 1, Mo.**





## Industrial Districts

The following planned industrial districts have sites available for immediate construction. Advantages offered by such districts are described in detail in the November-December 1954 issue, pages 6, 7, and 8.

Services offered are indicated by the following code: (A) Architect & Engineer; (C) Construction; (E) Electric Power; (G) Natural Gas; (F) Financing; (P) Paved Streets; (R) Rail Siding; (S) Sewers; (T) Telephone; (W) Water.

### Missouri

**PAGE INDUSTRIAL CENTER** — St. Louis—A planned industrial park, developed by Page Industrial Center, Inc., 7811 Carondelet, St. Louis 5, Mo., Edward L. Bakewell, Realtor, phone Central 1-5555, served by Rock Island Railroad, 60 acres with all services available on property. Restrictions.

### Georgia

**METROPOLITAN ATLANTA** — Five Industrial Districts offering planned sites of varying location, size, price. Services available: (A) optional, (C), (E), (G), (F) optional, (P), (R), (S), (T), (W). In your Southeastern plant or warehouse survey contact: F. Wm. Broome, Industrial Manager, DeKalb County C of C, 250 E. Ponce de Leon Ave., Decatur, Ga. (Atlanta phone, DRake 8-3691).

## Available Sites

### Near the Crowd—But Not in It

Middlesex County, N. J. 20 Miles from New York—50 Miles from Philadelphia. On U. S. No. 1, N. J. Turnpike and Mainline P.R.R. Write for Booklet.

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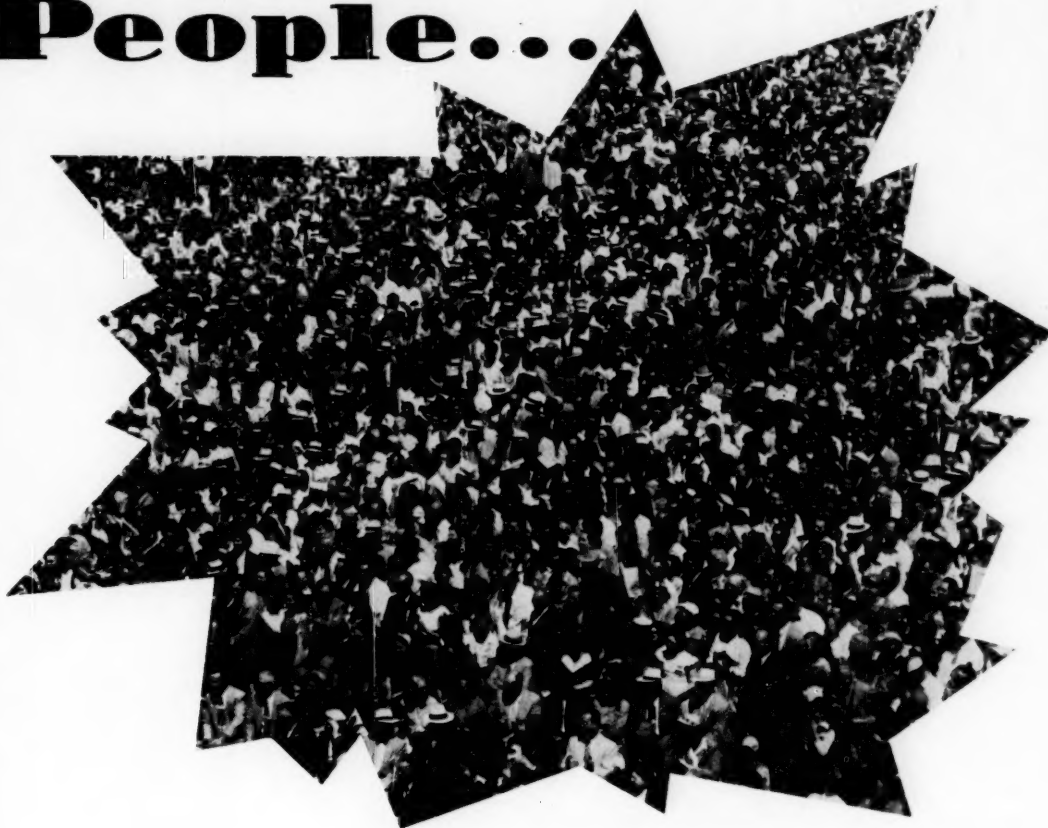
Tom called up Jim and asked how he felt about playing a spot of gin. Fine, says Jim, come on over. Can't, says Tom, just bought me a new Great Dane watch dog, and I got to sit here and watch him. Bring him on over, says Jim, he can sit out back with my ole yeller dog, Jim!, says Tom, my new dog—he's got this tree-men-jous head with these tree-men-jous teeth, he's got these great big paws—why, he'd kill your ole yeller dog quick as you could turn around. Heck, says Jim, my ole yeller dog can take care of himself. Anyhow, don't matter none what happens to him—he's just a ole yeller dog, ain't got no papers. After about an hour of gin, a terrific noise resounded from the back yard. Tom jumped up. Jim, Jim, my new Great Dane done kilt your ole yeller dog . . . Rushing out, the farmers found the Great Dane, decapitated, on the ground, and the ole yaller dog standing over him. Your ole yeller dog done bit my big Great Dane's head off! cried Tom, I ain't never seen the beat! What kinda dog is your ole yeller dog? Well, Jim scratched his head, he's just a ole yeller dog—ain't got no papers. Got him last fall when the circus was here. Only trouble is, I have to keep cutting that dang mane off his neck!

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